MINUTES OF MEETINGS

OF THE

ISTHMIAN CANAL COMMISSION

AND OF THE

ENGINEERING COMMITTEE

JANUARY TO MARCH
1907

OFFICE OF ADMINISTRATION
ISTHMIAN CANAL AFFAIRS
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ONE HUNDRED AND NINETEENTH MEETING.

WASHINGTON, D. C., *January 21, 1907.*

Present: Commissioners Shonts (chairman), Endicott, Hains, Harrod, and Secretary Bishop. General Counsel Rogers was present by invitation.

1. The minutes of the one hundred and fifteenth meeting were read and approved.

2. The minutes of the one hundred and sixteenth meeting of the Isthmian Canal Commission, held November 20, 1906, were read and approved, with the exception that, upon motion duly made and seconded, paragraph 1 of such minutes was changed to read as follows:

1. *Resolved*, That all vouchers, pay rolls, and public bills covering expenditures on the Isthmus within the Department of Construction and Engineering, the Department of Law and Government, the Department of Sanitation, the Purchasing Department, and the Department of Labor, Quarters, and Subsistence shall be approved for payment by the head of the respective departments in which and for the benefit of which the expenditures are made: *Provided*, That the head of each department above named is hereby authorized to designate a person in his department who shall approve for payment such vouchers, pay rolls, and public bills by direction of the head of such department.

Resolved further, That all vouchers, pay rolls, and public bills covering expenditures on the Isthmus in the Auditing Department and the Disbursing Department on the Isthmus shall be approved for payment either by the Chairman of the Commission or the Head of the Department of Construction and Engineering, or such person as they or either of them shall designate and authorize to approve for payment such vouchers, pay rolls, and public bills by his direction.

3. The minutes of the one hundred and seventeenth and one hundred and eighteenth meetings were read and approved.

4. On motion duly made and seconded, it was—

Resolved, That paragraph 2 of the minutes of the twenty-fourth meeting of the Executive Committee, held August 3, 1906, authorizing certain heads of departments to grant to employees absent from the Ishmus on the business of the Commission, and traveling for that pur-

pose, a per diem in lieu of actual traveling expenses, which was referred to the General Counsel by resolution of the Commission passed at its one hundred and fifteenth meeting, held November 15, 1906, be revoked, the General Counsel having reported that in his opinion the action contained therein was not legal.

5. The Chairman reported that he had received a communication from the Secretary of War, dated September 16, 1906, stating that the President approved the changes in plans of canal as outlined in the letter of the Chief Engineer, dated August 23, 1906, and approved by resolution of the Commission in paragraph 7 of the minutes of the one hundred and fourteenth meeting, held September 6, 1906.

6. The Chairman reported that he had received a communication from the Secretary of War, dated January 18, 1907, stating that the President approved the changes in plan of canal as outlined in paragraphs 6, 7, and 9 of the minutes of the one hundred and sixteenth meeting of the Commission, the first relating to the size of the locks; the second to the location of the Gatun locks and to the line of the canal from these locks northward to deep water in the Caribbean Sea; and the third to the change of line at the south entrance of the canal.

7. The Chairman stated that in accordance with the informal conference he had had with the Commission at a previous meeting, he had issued an invitation for proposals to complete the construction of the Panama Canal, to be opened January 12, 1907, such invitation having attached thereto a draft of proposed contract to be entered into by the successful proposer, showing the conditions under which the work was to be done. The Chairman submitted a copy of the invitation and form of contract as finally issued, and set forth hereunder, said invitation and form of contract being drawn substantially on the lines tentatively agreed upon at said conference.

Upon motion, the action of the Chairman was approved.

The Chairman further reported that four proposals under this invitation were received and opened on January 12, 1907, as follows:

No.	Name.	Guaranty.	Per cent.	Bond signed by—
1	George Peirce & Co., Frankfort, Me., and New York City.	Individual bond, $200,000.	7.19	George Peirce & Co. and George Peirce.
2	William J. Oliver and Anson M. Bangs, 5 Nassau street, New York City.	Certified check, $200,000.	6.75	The Commercial National Bank, Washington, D. C.
3	MacArthur-Gillespie Co. (New Jersey corporation), A. F. MacArthur, president, Fisher Building, Chicago, Ill.	Certificate of deposit, $200,000.	12.50	Franklin Trust Co. of New York City.
4	North American Dredging Co., R. A. Perry, general manager, San Francisco, Cal.	Bond, $200,000.....	28.00	The Metropolitan Surety Co.

The following is the invitation for proposals and form of contract above referred to:

ISTHMIAN CANAL COMMISSION,
OFFICE OF ADMINISTRATION,
Washington, D. C., October 9, 1906.

INVITATION FOR PROPOSALS TO COMPLETE THE CONSTRUCTION OF THE SHIP CANAL UPON THE ISTHMUS OF PANAMA BETWEEN THE CARIBBEAN SEA AND THE PACIFIC OCEAN.

The Isthmian Canal Commission, under authority of an act of the Congress of the United States approved June 28, 1902, the Executive orders issued by the President of the United States and the laws enacted by the Isthmian Canal Commission thereunder, and subject to all limitations imposed by the said acts and orders and by law, invites sealed proposals for the completion of the construction upon the Isthmus of Panama of an 85-foot lock-level ship canal, having a minimum depth of 41 feet and a minimum width at the bottom of 200 feet, between deep water in the Caribbean Sea and deep water in the Pacific Ocean, subject to the provisions stated in the draft of proposed contract annexed hereto.

I. *Basis of proposals.*

1. Proposals must be expressed in terms of a percentage upon the estimated cost of the construction, fixed as hereinafter provided, for which the contractor will agree to do the work.

2. Proposals must be inclosed in sealed envelopes marked "Proposals for completing the construction of the Isthmian Canal," and must be filed at the office of the Isthmian Canal Commission, Washington, D. C., not later than 12 m., January 12, 1907, at which time and place all proposals will be opened in the presence of the proposers.

II. *Qualifications of bidders.*

1. Any association of American contractors in whatever form organized, legally competent to contract, and having an available capital over all debts and liabilities except those reasonably assumed to furnish the bonds hereafter required to be given of $5,000,000 is qualified to submit proposals.

2. Each proposal must be accompanied by a certified check on or certificate of deposit in a bank or trust company of the United States acceptable to the Isthmian Canal Commission, and made payable to the order of the Chairman thereof, or by bond, in good security, in form attached, for the amount of $200,000. Such checks or certificates may be held, deposited, or collected by the Commission in its discretion. The same or their proceeds will be returned to unsuccessful bidders upon the rejection of their bids, and to the successful bidder upon the formal execution of a contract with the Commission in the form hereto annexed, secured by bond with approved security in the sum of $2,000,000 for the faithful performance thereof. Should the successful bidder fail to enter into such contract within fifteen days after the acceptance of his bid, such check, certificate of deposit, or the proceeds thereof shall be forfeited, or the bond substituted therefor shall become forthwith payable, as liquidated damages for said failure.

III. *Bonds.*

1. The bidder shall submit with his proposal the names of the surety or sureties whom he proposes to give upon the bond to secure the performance of his contract, accompanied by a statement from them that, should the award be made to the said bidder, they will execute the bond for the performance of

the contract in the form hereto annexed. Among the conditions contained in said bond shall be a provision that the surety shall not be discharged by reason of any failure of the Commission to give the contractor or the surety any notice provided for under the proposed contract; a provision that the surety shall not be released by reason of any change in the terms of the said contract, but that any such change shall only be a ground for reducing the liability of the surety under the contract to the extent to which the surety can show that the damages for which it is answerable have been enhanced thereby; and a provision that, in any suit on the bond, any award or assessment of damages by the Chief Engineer shall have the same effect against the surety as against the contractor.

2. If for any cause or at any time the surety or sureties given by the contractor shall be deemed insufficient by the Commission, sureties satisfactory to the Commission shall be substituted within thirty days after notice to that effect by the Chairman of the Commission.

IV.—*General directions to bidders.*

The Commission, in selecting the bidder to whom it will award the contract hereunder, will exercise its discretion for the purpose of securing a contractor who shall be capable, in its judgment, to properly and efficiently fulfill the conditions and requirements of the proposed contract. To aid the Commission in the selection of such contractor, each bidder must fully state what organization, facilities, and experience he commands for undertaking the work, and with what organizations and credit or means of credit he will carry out such contract. The names and addresses of all persons interested with the bidder in his proposal shall be submitted with his proposal. If partnerships are interested, the names and addresses of the firm members shall be given. If corporations are interested, a certificate showing the place of organization of the corporation, the amount of capital stock paid in, the excess of its assets over all liabilities, and the names and addresses of its officers and directors shall be furnished. The proposal shall also state that it is made without connection with any other bidder, that it is in all respects fair and free from collusion, and that no Member of Congress, official, or employee of the Government of the United States, of the Canal Zone, or of the Isthmian Canal Commission is interested therein; and it must also be sworn to in the form annexed before a notary public or other officer authorized to administer oaths.

V.—*Information furnished by Commission.*

Plans and specifications, in so far as they have been adopted, will be supplied prospective bidders upon demand, but must be regarded as a general guide only and not as conclusively binding upon the Commission. The Commission will also afford the freest opportunities, both in the United States and on the Isthmus, for the investigation of the Commission's working force and the terms under which each member thereof is employed, for the inspection of all contracts entered into or obligations assumed by the Commission, and for the examination of the state of the work and the conditions upon which it may be expected to be carried on.

VI.—*Rejection of bids.*

The Commission reserves the right to reject any bid. In case none of the bids is satisfactory the Commission will reject all and either throw open the proposals to foreign competition or proceed with the work without contract.

T. P. SHONTS,
Chairman.

PROPOSAL.

The ISTHMIAN CANAL COMMISSION,
Washington, D. C.

SIRS: ——— ——— hereby propose to complete the construction of a ship canal upon the Isthmus of Panama, between the Caribbean Sea and the Pacific Ocean, subject to all the conditions and requirements contained in the circular invitation of the Isthmian Canal Commission, as reissued December 15, 1906, and the terms and conditions contained in the form of contract thereto annexed, which are made a part of this proposal, for —— per centum upon the estimated cost of the construction to be fixed as in said contract provided; and ——— agree that if this proposal should be accepted ——— will, within fifteen days thereafter, enter into a contract for the completion of the said canal secured by bond as in the forms annexed.

The following representations are made in compliance with the requirements of your invitation for proposals, and are warranted to be correct:

(1) Names and addresses of all persons interested in this proposal.

[If partnerships are interested, give the names and addresses of the firm members; if corporations are interested, give the names and addresses of the officers and directors.]

(2) Financial standing, credits, and means of credit of individuals, partnerships, and corporations interested in this proposal.

[If a corporation is interested, a copy of the articles of association should be attached, together with a certificate showing the amount of capital stock paid in and the excess of assets over all liabilities. If a partnership is interested, a certificate should be attached showing the capital of the partnership and the excess of its assets over all liabilities. Similar detailed information should also be furnished as to individuals interested in the bid.]

(3) The facilities for prosecuting work commanded by individuals, firms, or partnerships interested in this proposal, and their past experience in carrying out substantial construction contracts.

This proposal is made without connection with any other bidder; is in all respects fair and free from collusion; and no Member of Congress, official or employee of the Government of the United States, of the Canal Zone, or of the Isthmian Canal Commission is interested herein.

——— ———.

This day, before me, a notary public for ———, appeared ——— ———, to me personally known, and known by me to be the individual whose signature is annexed to the foregoing proposal, and said that the statements therein contained are true. Witness my hand and seal this ——— day of ———, 1907.

——— ———, *N. P.*

[When surety company is surety.]

BOND ON PROPOSALS.

Know all men by these presents, that we, ——— ———, as principal—, and ——— (name of surety company), a corporation existing under the laws of the State of ———, as surety, are held and firmly bound unto the United States of America in the sum of $200,000, for which payment, well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

CONDITIONS.

The conditions of the above obligation are such that any award made by the Isthmian Canal Commission to the above-bounden principal, under a public invitation for completing the construction of a ship canal upon the Isthmus of Panama, shall be accepted by said principal forthwith, and the said principal shall enter into a contract for the completion of the construction of said canal, and give bond with good and sufficient sureties, to be approved by the Commission, for the faithful performance thereof in the forms annexed to said invitation. And the undersigned bind themselves, their heirs, executors, administrators, and successors, in case the said principal shall fail to enter into such contract and furnish such bond within fifteen days after such award, to pay the said Isthmian Canal Commission for and on behalf of the United States of America $200,000 as liquidated damages for such failure.

In witness whereof the principal hereto has caused the same to be executed by its proper officer thereto duly authorized under a ——— of its[a] ———, dated the —— day of ——, 190—, and the surety hereto has caused the same to be executed by its proper officer thereto duly authorized under a ——— of its[a] ———, dated the —— day of ———, 190—.

Executed in triplicate this —— day of ———, 190—.

Attest:

——— ———

——— ——— [SEAL.] By ——— ———.[b]

——— ——— as its ——— (Principal).

——— ———

——— ——— [SEAL.] By ——— ———.

as its ——— (Surety).

[a] Board of directors or other governing body of the prinicpal. A copy of the by-law or of the record of proceedings of the governing body of the corporation, showing the authority of the officer or officers executing the bond for the principal, must accompany or be attached to the bond; the same to be certified by the custodian of such records, under the corporate seal, to be a true copy. If the authority was given by resolution, enough of the records will be copied along with the resolution to show that it was adopted, and the entire matter copied (not simply the resolution) will be certified to be a true copy. If the authority is a by-law, the wording of the executing clause will be altered accordingly.

[b] President or other officer authorized to sign for the principal. A copy of the record of the selection of the officer or officers executing the bond for the principal, certified by the custodian of such records, under the corporate seal, to be a true copy, must accompany or be attached to the bond, unless the resolution authorizing its execution gives the names of the officer or officers, in which case no other evidence of their official character is required.

FORM OF CONTRACT.

An agreement for the construction of a lock-level ship canal upon the Isthmus of Panama between deep water in the Caribbean Sea and deep water in the Pacific Ocean, entered into this —— day of ———, 1907, between the United States of America, by and through the Isthmian Canal Commission, hereinafter called the Commission, and ——— ———, the accepted bidder, under a public invitation for proposals to complete the construction of the said canal, hereinafter called the contractor.

ARTICLE I.—*Work to be done by the contractor.*

The work to be done by the contractor shall be construction work proper, and shall comprise the following items and all work of actual construction necessarily connected therewith.

1. Dredging, clearing, and excavating canal from the locks at either end of the canal to deep water.

2. Construction of the proposed dam at Gatun, and of the dam or dams at or near the southern or Pacific end of the canal.

3. Construction of all locks and regulating works at either end of the canal and wherever located.

4. Dredging, clearing, and excavating canal from the dams at either end to the Culebra cut.

5. Excavation and completion of the Culebra cut and revetments and the approaches thereto.

6. Removal and reconstruction of the Panama Railroad upon lines of relocation to be fixed by Chief Engineer of the Commission.

7. Removal and transportation of all spoil of whatsoever character, whether by land or water, to such points or places, and the disposition thereof in such manner, as may be designated by the said Chief Engineer.

8. The quarrying, transportation, and dressing of all stone required for masonry work, the manufacture and transportation on the Isthmus of concrete, the transportation and preparation on the Isthmus of timber, or other materials, except finished metallic parts, used in the proper execution of the above work and constituting a part of the completed structure and the appliances adjunct thereto and necessary to the proper maintenance and operation thereof.

9. All work herein required to be done shall be performed according to the plans and specifications furnished by the Chief Engineer of the Commission; but said plans and specifications will be subject at any time to such alterations and changes as may be deemed advisable by the Chief Engineer or the Commission.

ARTICLE II.—*Extra work.*

Should the Commission, prior to the completion of the canal, decide to construct breakwaters at either end of the canal, additional reservoirs or dams, or additional auxiliary works of any character the contractor shall have the right to and, if required, shall construct the same upon the terms upon which he agrees hereunder to perform the work upon the canal proper; but a supplemental estimate of the cost and time for the completion of the said additional works shall be made by an engineering committee, such as is hereinafter provided for, in the same manner as the estimate is provided to be made by the original engineering committee of the cost and time required for the construction of the canal proper.

ARTICLE III.—*Plant and facilities furnished by the Commission.*

The Commission agrees to furnish, free of cost to the contractor, plant, facilities, and means as follows:

1. All locomotives, cars, steam shovels, drills, cranes, dredges, tugs, scows, dumps, rails, ties, and track materials, electric light or power plants, and other machinery of a substantial character required to efficiently carry on the construction work, and necessary work animals and equipment; but not hand tools or machinery of a minor character usually carried in stock, save through its Department of Materials and Supplies as hereinafter provided.

2. All raw materials put into the work, the machinery and appliances necessary for the operation and protection of the locks or other parts of the canal,

but not the treatment, shaping, finishing, transportation upon the Isthmus, or incorporation into the work of such materials, nor the erection, or assembling of such machinery upon the Isthmus; cement; explosives; oil, coal, fuel, and at the election of the Commission, electricity, for the proper operation of any rolling or floating stock or other machinery used by the contractor in the performance of his work upon the Isthmus: *Provided, however,* That the Commission may, in its discretion, transfer to the contractor the manufacture of cement or explosives, if it should be found that either can be properly made upon the Isthmus, and the manufacture upon the Isthmus of metallic parts of the locks and auxiliary works of the canal, the cost of such manufacture to be added in such case to the total estimated cost of the canal as hereinafter provided to be arrived at.

3. Construction tracks already built in a condition not less efficient than now existing; but additional construction tracks, including the relocation of those turned over to the contractor, must be built by the contractor.

4. Quarters for the proper housing of all necessary employees of the contractor; but the Commission shall be allowed reasonable time for the construction of quarters additional to those now existing.

5. Warehouses for the storage of the contractor's tools and supplies.

6. Hospitals and hospital service for sick employees of the contractor.

7. Office buildings for the accommodation of the contractor's clerical and administrative force actually employed upon the Isthmus in connection with the construction of the canal.

8. Transportation of the contractor's employees, employees' families, and supplies over the Panama Railroad, and employees and employees' families over the Panama Railroad Steamship Lines at rates not greater than one-half the regular published tariff rates. The contractor shall also be at liberty in all cases, where the transportation facilities afforded by the Panama Railroad Steamship Line are not sufficient for the needs of the contractor's business, to employ such other lines of transportation as he sees fit, until such time as the Panama Railroad Steamship Line is in condition to resume or furnish sufficient service to the contractor.

9. Free telegraph and telephone service upon the Isthmus necessary to the actual efficient discharge of the contractor's business.

10. Free trackage rights over the Panama Railroad Company's tracks for the work trains of the contractor, from canal cuttings to dump grounds, or docks when necessary, and return; and as a part of this obligation the Commission will assume the cost of constructing such additional trackage, yards, or other facilities of the Panama Railroad as may be essential to the proper execution by the contractor of the work herein provided for, the amount and character of such work being always subject to the direction and approval of the Chief Engineer of the Commission.

11. Water for offices, engines, shovels, drills, dredges, and other purposes for which it is reasonably required for the prosecution of the work.

12. Commissary stores which will be open to the contractor and his employees upon the same terms as to the Commission's own employees. The Commission will also supply from its other departments, so far as it may have the same available, tools and supplies which it is not the duty of the Commission to furnish free hereunder, upon the terms of cost plus the usual handling charges.

13. Mess-house privileges for contractor's employees equal to those at any time extended to the employees of the Commission. The contractor shall also have the privilege of taking over and operating upon his own account such mess houses, either directly or by contract with a third party, subject in all cases to

the direction and approval of the Chief Engineer with respect to prices, privileges, and general methods, and subject to the duty to furnish to the Commission's employees accommodations in all respects equal to those furnished to the contractor's own employees. Mess or lodging houses furnished by the Commission to the contractor, or any subcontractor, shall be subject to daily inspection by the Chief Engineer or his agents, and all directions and modifications which the Chief Engineer may deem necessary for the proper housing and feeding of such employees shall at once be carried into effect by the contractor. Any profit or loss arising from the operation by the contractor of mess houses shall be debited against or credited to the contractor.

14. The equipment which the Commission under this article agrees to supply it will also maintain; and it will to that end operate and properly furnish and supply such machine and other shops as may be necessary, but this obligation shall not extend to the making of repairs which are ordinarily known as outside, yard, or running repairs, which must be made by the contractor.

15. The Commission, to the extent to which its machine shops may be adequate, will manufacture or repair for the contractor such minor machinery and tools as can be economically and conveniently manufactured or repaired at the said shops, charging the contractor therefor actual cost plus 15 per cent.

16. The judgment of the Chief Engineer of the Commission shall in all cases be controlling as to the extent and character of the facilities to be supplied by the Commission under this article.

ARTICLE IV.—*Functions reserved to the Commission.*

The Commission will retain control of—

1. All engineering work in connection with the construction of the canal, including surveys and the general direction and control of the construction work to be done by the contractor with the right to fully inspect same.

2. Municipal engineering, including the construction of waterworks, sewers, roads, and streets wherever located.

3. The governmental and police department.

4. The sanitary and hospital department.

5. The commissary department.

6. Mess houses, except in so far as the same may be taken over by the contractor as hereinbefore provided for, and the inspection of the same in that event.

7. Quarters.

8. The construction and maintenance of buildings.

9. The operation of the Panama Railroad.

10. An auditing department, which shall have control over the books and accounts of the contractor, with authority to direct the manner in which all accounts relating to expenditure upon the canal construction by the contractor shall be kept and to which department the books and accounts of the contractor shall at all times be open.

11. A department of materials and supplies.

12. And generally, all powers, rights, and privileges not herein specifically ceded to the contractor.

ARTICLE V.—*To be supplied by the contractor.*

1. The contractor shall furnish and employ all labor, foremen, superintendents, clerks, general office staff, and furnish all tools and machinery of a minor

character necessary to efficiently operate the plant and carry out the work to be undertaken hereunder.

2. He shall make all repairs commonly known as outside repairs upon equipment and machinery employed by him.

ARTICLE VI.—*Obligations to be assumed by the contractor.*

1. The contractor shall begin the actual work of construction within sixty days from the signing of this contract.

2. He shall take over into his own employment all employees on the Isthmus upon the pay rolls of the Commission at the time that he begins work, except such employees as the Commission may reserve to its own use. Employees on what is known as the "gold list" taken over by the contractor under this article shall not be discharged, nor shall their salaries be reduced, except for cause, and then only when their discharge or salary reduction is approved by the Chief Engineer of the Commission.

3. He shall assume and carry out all contracts that may have been entered into by the Commission for the supply and employment of foreign or other labor, and shall execute in connection therewith such agreements or papers as may be required by the Commission.

4. He shall scrupulously abide by all the rules and regulations that may be put into force from time to time by the sanitary department of the Commission, and shall issue all orders required of him by the Commission for the proper observance and enforcement of said rules and regulations.

5. He shall, on written notice from the Chairman or Chief Engineer of the Commission, discharge for cause any employee who may be in his service.

6. He shall comply with all laws of Congress or of the government of the Canal Zone, with respect to the hours of labor, character of employees, and other matters in so far as the same may be applicable in the work undertaken by him; and all provisions of law bearing upon the performance by the contractor of this contract shall be regarded as incorporated into and made a part hereof, whether expressed or not.

7. He shall perform all work embraced in this contract in the most thorough and workmanlike manner, and subject to the approval of the Chief Engineer of the Commission, with the highest regard for the safety of life and property, and in accordance with the plans, specifications, and drawings furnished by the Chief Engineer of the Commission, and subject to his orders and directions.

8. No material shall be put into the work by the contractor of which the Chief Engineer may disapprove; but failure by the Chief Engineer to disapprove of unsound materials or the improper preparation or use of material shall not exempt the contractor from liability to the Commission for damage or extra expenditure occasioned thereby, unless the contractor in doubtful cases shall have requested of the Chief Engineer in writing a definite approval of any particular materials or any specified preparation or use thereof, and the Chief Engineer, after a reasonable time, has failed to act upon the request. The cost of replacing or repairing damages due to the use of defective materials or any specified preparation or use thereof after the contractor has discharged his full duties under this section shall be reimbursed the contractor as a part of the current payments to him, and shall be added to the estimated cost of completing the canal as fixed by the engineering committee hereinafter provided for.

9. He shall carry on the construction work, if required, during the night as well as during the day, and in such shifts as the Chief Engineer shall direct.

10. He shall, subject to such indemnity as is provided for in Article VII,

assume and be responsible for all just legal claims for injuries or wrongs inflicted upon persons and property by his own act or that of any of his employees, except property and land damages necessarily occasioned by the orderly construction of the canal and auxiliary works.

11. He shall not assign or transfer this contract or any interest therein without the written consent of the Commission.

12. He shall not enter into subcontracts for the performance of the work to be undertaken hereunder without the written consent of the Commission; and as a condition precedent to seeking the consent of the Commission shall furnish the Commission with a written statement as to the nature of the proposed subcontract and the leading provisions thereof, and with detailed information concerning the proposed subcontractor or subcontractors, their financial standing and resources, their facilities for prosecuting the work of canal construction, and such other information as may be required of him with respect to them or any of them.

13. In all cases where subcontracts are entered into with the approval of the Commission, and bonds are taken by the contractor to secure the performance of such subcontracts, such bonds shall be taken subject to assignment to the Commission, and shall be so assigned, as additional security for the performance by the contractor and subcontractor of this contract.

14. He shall maintain upon the Isthmus an agent upon whom all notices required or proper to be served hereunder upon either himself, his sureties, or any subcontractor, may be served, and who shall, in addition, be authorized to accept service of legal process on behalf of himself, his sureties, or any subcontractor at the suit of the Commission or any private person.

15. He shall be responsible to the Commission for all injuries or damages inflicted upon the plant with which he may be intrusted by the Commission and upon the canal or any of its auxiliary works by the negligence of himself or any of his employees or subcontractors, or the employees of such subcontractors; but shall not be responsible for any depreciation in the value of the plant or material intrusted to him or any of his subcontractors or employees by the Commission attributable to ordinary wear and tear. Damages inflicted under this clause shall be estimated by the Chief Engineer, subject only to revision by the Chairman of the Commission, and the same shall be deducted from the percentage earned by the contractor under this contract, if any, or if no percentage shall have been earned, the said damages shall be paid by the contractor or his surety.

ARTICLE VII.—*Payments.*

1. Payments will be made to the contractor by the Commission on or about the 15th day of each month in current coin of the United States or its equivalent, either in Panama, Washington, or New York City, as the contractor may elect, covering the cost of the actual construction work done by the contractor or his subcontractors upon the canal during the preceding calendar month, including therein cost of labor and of procuring labor, superintendence and clerical service on the Isthmus, transportation of employees whose pay is chargeable against the Commission hereunder to and from the Isthmus, overtime paid to employees, wages paid to employees when sick (if allowed by the Chief Engineer), current purchases of tools and repairs made by the contractor, and the actual cost to the contractor of any materials put into the work; and excluding the cost of organization, administration, legal and general expenses of the contractor, interest, taxes, cable service, commissary purchases and the cost of running the mess houses, should the contractor take over the same, and all expenses to which he shall have been put by reason of

his own negligence or inefficiency, or by reason of the supply of any unsound or imperfect materials or any imperfect preparation or use of material contrary to the provisions of this agreement, and all expenses not directly connected with the construction work which he may have incurred on his own account: *Provided, however*, That two-thirds of the actual cost, including legal expenses, to the contractor or subcontractors of meeting valid legal claims of employees or others for damages for injury or death due to the actual work of canal construction, or of compromising, when approved by the Commission, any claims for such damages shall be included in the monthly payments above provided for. Where subcontractors are employed by the contractor upon a percentage basis, only such payments will be made to the contractor on account of such subcontractors as would be made in the event the contractor had done the work directly.

2. Payments will be made upon certificates signed by some designated official of the contractor upon the Isthmus and the Chief Engineer of the Commission, accompanied by vouchers showing in detail such expenditures as are authorized under this article.

ARTICLE VIII.—*Final compensation.*

Upon the completion of the construction work upon the canal proper and the final acceptance by the Chief Engineer or the Commission of the work done by the contractor, there will be paid to the contractor —— per centum upon the total estimated cost of construction as fixed by the Engineering Committee under Article IX hereof, subject to the following conditions:

1. If the total actual cost of the construction upon the basis prescribed in Article VII shall exceed the total estimated cost of construction as fixed by the Engineering Committee as hereinafter provided, there shall be deducted one-half per centum from the per centum otherwise payable to the contractor for each $5,000,000, or half fractional part thereof, by which the actual cost shall exceed the estimated cost. If the actual cost shall fall below the estimated cost, the contractor shall receive, in addition to the stipulated percentage upon the estimate of the Engineering Committee, one-third of the difference between such actual cost and the estimated cost. In no event shall the contractor receive a percentage upon any part of the actual cost exceeding the estimated cost, unless the estimated cost be increased, as herein provided.

2. If the construction work upon the canal proper herein provided for shall not be completed by the contractor within the time fixed by the Engineering Committee, the contractor shall forfeit as liquidated damages for each month that the work of construction shall exceed the estimated time for the construction $100,000; if it shall be completed by him in less time, he shall be paid a premium of $100,000, in addition to all other compensation earned hereunder, for each month less than the estimated time in which he shall have completed it: *Provided, however*, That the damages assessed under this section shall not in any event exceed the percentage otherwise payable to the contractor and the amount of the contractor's bond to secure performance.

3. If, however, at the end of any year of the contractor's work, or at the option of the Chief Engineer at the end of any shorter period, the cost of construction has not exceeded nor the rate fallen below the proportionate estimated cost or rate of construction, the Commission will pay to the contractor two-thirds of the agreed percentage upon the actual cost to such date; but if at any subsequent time the cost should exceed or the rate fall below the proper proportionate cost or rate, no further portion of the agreed percentage shall be paid until the arrears of cost and rate are made up.

4. No allowance shall be made the contractor for any interruption or suspension of the work hereunder, unless the same shall be due to an act of God or a public enemy, or an order of the Commission, or failure or unreasonable delay of the Commission to maintain or furnish such plant or materials as it agrees hereunder to maintain or furnish, or failure to fairly perform any material act which hereunder it agrees to perform. Where the suspension or interruption of work is due to any of the last-mentioned causes, the time of suspension or interruption shall be added to the estimated time for the construction of the canal.

5. If any suspension of the work should be due to a default or order of the Commission, and such suspension should exceed one year, the contract may be treated as terminated by the contractor, who shall thereupon become entitled to receive such percentage as he may have earned upon the work actually done. At such time, also, an estimate shall be made by the Chief Engineer to ascertain whether the work to such time has proportionately exceeded or fallen behind the estimated cost and time; and proportionate profits and premiums or deductions shall be credited to or charged against the contractor accordingly.

6. All questions with reference to the percentage or profits earned by or payable to the contractor hereunder, the deductions therefrom, or premiums thereon, or the increase of the estimated period of construction, attributable to the above-named causes, shall be determined by the Chief Engineer of the Commission, subject only to appeal to the Chairman of the Commission.

ARTICLE IX.—*Method of estimating cost and time of construction of canal.*

1. Within ten days from the execution of this contract, the contractor shall nominate two engineers of approved standing, who, together with three engineers to be nominated by the Commission within the same period of time, shall constitute an Engineering Committee. One of the three engineers nominated by the Commission shall be the Chief Engineer of the Commission, who shall be the Chairman of the Engineering Committee. The said Engineering Committee thereupon, upon a consideration of all available data, and, if in their judgment it be deemed expedient, upon personal investigation of the work to be performed upon the Isthmus and of the conditions surrounding the same, shall estimate the total reasonable cost of completing the construction of the canal as herein outlined, and as may be more particularly defined in the plans and specifications for the construction of the canal submitted to said committee by the Commission. In arriving at the said estimated reasonable cost, the committee shall carefully take into account all the services to be performed and the means, facilities, and materials to be supplied by the Commission in the construction of the said canal, as hereinabove provided for, and shall exclude from the estimated cost the value of same and all interest charges of whatsoever character, cost of right of way and land damages, and all expenses incurred by the Commission in discharging the portion of the work reserved to it, and the organization, administration, legal, general, and other expenses of the contractor for which he is not entitled to be reimbursed under the terms of Article VII, and shall make no allowance for losses or damages, legal or otherwise, attributable to the acts of himself or employees and subject to be sustained by him, nor any allowance for contingencies.

2. The Engineering Committee shall likewise, from similar data and investigations, estimate the reasonable time for the construction of the canal with the facilities afforded to the contractor under the terms of this contract. In fixing the said time, they shall assume that the contractor will at all times employ, on a basis of eight hours a day for American labor and ten hours a day for foreign labor, a force of laborers and employees upon the actual work of construction

or the superintendence thereof, equal to the number that can be efficiently employed, having due regard to the progressive condition of the work, and that he will be supplied by the Commission with the plant hereinbefore described necessary to fully employ his working forces.

3. The committee shall also submit alternative estimates of time and cost, based upon night work and two shifts a day of ten hours each for foreign and eight hours for American labor, and also upon continuous work with three shifts a day of eight hours each, and shall formulate a rule by which these estimates may be increased or diminished, according to the time that the work may be carried on upon one or the other of these several bases.

4. If at any future time the plans and specifications for the construction of the canal, as submitted to the said Engineering Committee, shall be materially altered in any respect, or if it shall be made to appear to the President of the United States that the estimates of the committee are based upon physical data so erroneous as to materially affect the estimated cost and time of construction, or that the estimates have become substantially inequitable by reason of the intervention of an act of God or a public enemy, or for any other material cause which shall not have been taken into account by the Engineering Committee in making their estimate, and for which the contractor is not responsible, or that the annual average scale of wage, after the exercise of due economy upon the part of the contractor substantially exceeds or falls below that taken as a standard by the Engineering Committee in making their estimates, and the estimates can not be amended by the application of any rule formulated by the committee under the requirements of this contract, the said committee or a new committee formed in the same manner as the original committee shall, upon written notice of either the Commission or contractor, provided the same be given within sixty days, or in the proper case upon notice from the President, promptly convene and modify the estimate as to the cost or time, or both, by adding to or taking therefrom the cost or time fairly attributable to the changes made in said plans and specifications, to the use of such erroneous data, to such act of God or a public enemy, to such other cause, or to such change in the average scale of wage.

5. The construction of breakwaters, either to protect the Atlantic or the Pacific end of the canal, shall not be included in the estimate of the said committee of the cost and time of the construction of the said canal. Should the Commission subsequently decide upon the construction of breakwaters, or upon the construction of any additional reservoirs or dams or other works, not provided for in the plans and specifications at the time of their submission to the Engineering Committee, supplemental estimates shall be made by the committee, or a similar committee to be appointed in its place, of the cost and time required for the construction of such breakwaters, reservoirs, dams, or other works upon the same basis as the estimates are made for the time and cost of the completion of the canal proper.

6. The estimates of the time and cost of the main canal construction work herein contemplated shall be completed, if possible, but with due regard to the importance of the subject, within ninety days, and in any event within six months from the signing of this contract, and shall fix the cost and time as of the date when completed. From the estimated cost, the cost of any construction work upon the canal done by the Commission after such date shall be deducted, and to the estimated cost the cost of any work done by the contractor before such date shall be added.

ARTICLE X.—*Default by the contractor.*

1. Should the contractor at any time fail to observe any of the material obligations of this contract; or should he fall at any time to proceed with reasonable diligence in the construction of the canal, so that, after excluding delays due to acts of God or public enemies, or an order or default of the Commission, or to any other cause which under the terms of this agreement shall entitle the contractor to an extension of the estimated time for completion, the canal, in the judgment of the Chief Engineer, can not be completed within 20 per centum more than the estimated time; or should the contractor fail to keep employed at work upon the canal a force of workingmen sufficient, in the judgment of the Chief Engineer, to complete the canal within 20 per centum more than the estimated time, or should the contractor within three months after notice from the Chief Engineer fail to increase the working force to any extent prescribed by the Chief Engineer within the number that can be efficiently employed upon the said work, having due regard to its progressive condition; or should the work done by the contractor, in the judgment of the Chief Engineer, be done in an unworkmanlike manner or in violation of the directions of the Chief Engineer; or should any materials put into the dams, locks, auxiliary works, or other parts of the canal by the contractor contrary to the provisions of this agreement be unsound or defective and such as, in the judgment of the Chief Engineer are calculated to impair the structural strength and efficiency of the canal; or should the contractor's current actual cost of construction at any time, in the judgment of the Chief Engineer, exceed by more than 20 per centum that part of the total estimated cost of construction properly proportionable thereto; or should the contractor become insolvent or pass into the hands of a receiver; or should the contractor fail to satisfy or secure any judgment that may be rendered against him within thirty days after the same shall go to execution; or become incapacitated for the proper discharge of his duty under this contract, by reason of legal or other complications, the Commission, through the Chairman, may, by ten days' written notice served upon the contractor, declare the contractor to be in default.

2. In any case in which the contractor is declared to be in default, as aforesaid, the Commission may (1) either allow the contractor to resume work upon the canal, subject to such conditions, forfeitures, and penalties as it may impose, or (2) take possession of and assume control and direction of the work of the construction of the canal, and may complete it either directly through its own agents or employees, or (3) may recontract any unfinished work privately or by public advertisement, upon the basis herein outlined or on any other basis, to any contractor or contractors that it may select; and in any event may charge against the contractor and his sureties the additional cost of doing the work which the contractor agrees under his contract to do, and may collect the same from the contractor or his sureties as damages, and should the construction of the canal be delayed beyond the estimated time by the default of the contractor, may collect, in addition, from the contractor or his sureties for each month in excess of the estimated time the liquidated damages provided for under this contract.

3. And in any and all of the foregoing events the Commission shall have the right to withhold, pending the final adjustment, any balance otherwise due the contractor and proceed in the courts of the United States against the contractor or his sureties forthwith, or at any later period that it may deem advisable, to collect any damages that it may be entitled to, either in law or in equity,

whether damages specified herein or damages additional thereto allowed by law: *Provided always*, That the aggregate damages for which the contractor may be held liable under this contract shall not exceed the percentage and premiums otherwise payable to the contractor and $3,000,000 in addition thereto.

4. The contractor and his sureties covenant that in all cases where the Commission so elect the damages sustained by reason of the default of the contractor may be assessed by the Chief Engineer, subject to review by the Chairman of the Commission; and the final award of damages as determined by the Chief Engineer or Chairman shall be paid to or recovered by the Commission from the contractor or his sureties under the terms of the contractor's bond, or the Commission or the United States may sue to recover the actual damages sustained, treating the said award as prima facie evidence of the damages sustained and throwing upon the contractor and his sureties the burden of showing that the said award was the result of fraud or collusion upon the part of the Chief Engineer or Chairman or that it was arrived at contrary to the provisions of this contract.

ARTICLE XI.—*Termination of contract when contractor is not in default.*

1. Irrespective of any default upon the part of the contractor, the Commission reserves the right to terminate this contract at any time in its discretion upon the terms of paying to the contractor the entire cost of the work performed by him to such time, ascertained in the manner hereinbefore provided, the percentage earned by him upon such cost, and $250,000 additional: *Provided*, That the total amount payable to the contractor, including debits against him authorized under the contract, shall not in any event be less than $500,000: *And provided, further*, That should the contractor have done at such time, in the judgment of the Chief Engineer, less than one-third of the work contracted to be done, he shall be paid 1 per centum additional. At such time, also, an estimate shall be made by the Chief Engineer to ascertain whether the work to such time has proportionately exceeded or fallen behind the estimated cost and time, and proportionate profits and premiums or deductions shall be credited to or charged against the contractor accordingly.

ARTICLE XII.—*Decision of the Chief Engineer.*

The decision of the Chief Engineer, in the absence of fraud, misconduct, or a palpable error, apparent on the face of any decision or award, and to the extent that it shall not be modified by the Chairman of the Commission, shall be conclusive and binding upon the contractor: (1) Upon all questions submitted under the foregoing provisions of this contract to his determination; (2) upon the question whether there has been a substantial breach of contract upon the part of the contractor; (3) upon the question whether the contractor is in default; (4) upon the character and extent of the damages sustained by the Commission or the United States from any breach of contract or default upon the part of the contractor.

ARTICLE XIII.—*Definitions.*

1. "Commission" means the present Isthmian Canal Commission or any successor thereof or any individual, officer, or department of the United States to whom or to which the duty of constructing or arranging for the construction of the Isthmian Canal may hereafter be intrusted by law or Executive order.

and "Chairman of the Commission" means any successor exercising the Chairman's present functions. All action reserved to the Commission hereunder may be executed and carried out by its Chairman. Any rights secured to the Commission hereunder shall also be deemed rights secured to the United States of America, and, if that course be deemed advisable, may be enforced in the name of the United States.

2. "Chief Engineer" means the Chief Engineer of the Isthmian Canal Commission or any successor thereof or any deputy or substitute that may be designated by the said Commission or its successor. In all cases where action is provided to be taken by the Chief Engineer, similar action taken by the Commission or its successor shall be equally effective.

3. "Engineering Committee" means either the original Engineering Committee or any similar committee that may be appointed in its place, it not being contemplated that the Engineering Committee will be maintained as a permanent organization.

4. "Contractor" means contractors or the employees of any contractor or any subcontractor or employees when doing the work of the principal contractor or the successors or assigns of the contractor.

5. "He," "his," or "him" means, in the proper case, "it" or "its," "they," "their," or "them."

6. "Surety" means "sureties," and whatever is required of any one surety shall be required of all.

In witness whereof the Isthmian Canal Commission and ——— ——— have caused this contract to be executed in triplicate the year and date first above mentioned.

——— ———.

——— ———.

Attest:

——— ———.

——— ———.

———

[When both principal and surety are corporations.]

BOND FOR FULFILLMENT OF CONTRACT.

Know all men by these presents, that ——— ———, a corporation existing under the laws of the State of ———, as principal, and ——— ———, a corporation existing under the laws of the State of ———, as surety, are held and firmly bound unto the United States of America in the penal sum of ——— dollars ($———), for which payment, well and truly to be made, we bind ourselves and our successors, jointly and severally, firmly by these presents.

Given under our hands and seals this —— day of ———, 190———.

CONDITIONS.

The conditions of the above obligation are such that if the said above-bounden ——— ———, or its successors, shall well and truly, and in a satisfactory manner, fulfil the contract hereto annexed, for the completion of the construction of a ship canal upon the Isthmus of Panama, and shall promptly make payments to all persons supplying him with materials and labor in the prosecution of the work contemplated by the contract, this obligation shall be void; otherwise shall remain in full force and virtue.

It is further agreed that the surety hereon shall not be discharged by reason of any failure of the Commission to give the contractor or the surety any notice provided for under the said contract and that the surety shall not be released by reason of any change in the terms of said contract, but that any such change shall only be a ground for reducing the liability of the surety under the contract to the extent to which the surety can show that the damages for which it is answerable have been enhanced thereby; and that in any suit hereon any decision or assessment of damages by the Chief Engineer, to the extent that it may not be modified as provided in said contract, shall have the same effect against the surety as against the contractor.

In witness whereof the principal hereto has caused the same to be executed by its proper officer thereto duly authorized under a ——— of its ——— dated the —— day of ———, 190–, and the surety hereto has caused the same to be executed by its proper officer thereto duly authorized under a ——— of its ——— dated the —— day of ———, 190–.

Executed in triplicate this —— day of ———, 190–.

Attest:

——— ———

——— ——— [SEAL.] By ——— ———,
——— ——— as its ——— (principal).
——— ———

——— ——— [SEAL.] By ——— ———,
as its ——— (surety).

[Indorsement on back.]

GENERAL INSTRUCTIONS TO BIDDERS.

1. Postage must be prepaid in full on all bids mailed to this office.

2. No person in the service of the Isthmian Canal Commission will render assistance in the preparation of proposals or supply information with respect to any actual or prospective bidders.

3. Proposals should be submitted on blanks furnished herewith. They must be signed by the bidder with his usual signature in full, and should give his business address. If proposals are made by a firm, the firm name should be signed by one of the members; if by a corporation, they should be signed with the name of the corporation, followed by the signature of an officer, who should file therewith evidence of his authority to sign the corporate name.

4. Bidders are warned that any modifications of conditions or requirements, or failure to comply with the requirements of the invitation, will subject the proposal to the risk of being considered informal, at the option of the Commission.

5. Before, but not after, the time for opening bids any bidder may, by written notice, withdraw his bid, which in that event will be returned to him unopened.

6. The Commission will not permit changes in bids after the hour for opening, nor will it assume the responsibility for making alterations or corrections therein at the request of bidders, whether such requests be received before or after the bids are opened.

7. Neither the laws nor regulations make allowance for errors, either of omission or commission. It will be assumed that bidders are fully informed of these conditions and requirements before submitting proposals, and [illegible] will be relieved from the responsibility assumed under his proposal upon a plea of error.

8. Upon motion it was ordered that the following Executive order reorganizing the work of the Isthmian Canal Commission be spread upon the minutes:

EXECUTIVE ORDER.

The Executive order of April 1, 1905, is hereby changed as follows:

The Commission will hold quarterly sessions the first week in February, May, August, and November, of each year, on the Isthmus of Panama, and will continue each session as long as public business may require. Further notice of such meetings shall not be necessary to their regularity. The Commission may hold special sessions at the call of the Chairman. Four members shall constitute a quorum and the action of such majority shall be the action of the Commission.

The Commission, under the supervision of the Secretary of War and subject to the approval of the President, is charged with the general duty of the adoption of plans for the construction and maintenance of the canal and with the execution of the work of the same; for the purchase and delivery of supplies, machinery, and necessary plant; the employment of the necessary officers, employees, and laborers, and with the fixing of their salaries and wages; with the operations of the Panama Railroad Company and steamship lines as common carriers; with the utilization of the Panama Railroad as means of constructing the canal; with the government and sanitation of the Canal Zone and with all matters of sanitation in the cities of Panama and Colon and the harbors thereof; with the making of all contracts for the construction of the canal or any of its needful accessories; and with all other matters incident and necessary to the building of a waterway across the Isthmus of Panama, as provided by the act of Congress, June 28, 1902.

The Executive Committee, as provided for in my Executive order of April 1, 1905, is hereby abolished.

In order to promote the greatest harmony between the heads of departments and to secure results by the most direct methods the following organization shall be created:

The organization shall consist of the Chairman and the following heads of departments: Chief Engineer, General Counsel, Chief Sanitary Officer, General Purchasing Officer, General Auditor, Disbursing Officer, and Manager of Labor and Quarters. The duties of each shall be as follows:

1. The Chairman shall have charge of all departments incident and necessary to the construction of the canal or any of its accessories.

2. He shall appoint the heads of the various departments, subject to the approval of the Commission.

3. The head of each department shall report to and receive his instructions from the Chairman.

4. He shall have charge of the operations of the Panama Railroad and Steamship Lines.

5. He shall perform such other duties as may be assigned to him from time to time by the Secretary of War.

A minute of every transaction of the Chairman shall be made, and one copy of the minutes shall be forwarded to the Secretary of War and another copy transmitted for the consideration of the Commission at its next meeting.

The Chief Engineer shall have charge of:

1. All engineering work relating to the canal and its accessories.

2. All construction work on the Isthmus of Panama.

3. The operation of the Panama Railroad so far as same relates to canal construction work.

4. The custody of all the supplies and plant of the Commission upon the Isthmus.

5. In the absence of the Chairman from the Isthmus the Chief Engineer shall act for him in all matters requiring prompt attention, such action to be reported to the Chairman for his action, but the action of the Chief Engineer shall be in full force and effect until disapproved by the Chairman.

The General Counsel shall have charge of:

1. All legal matters pertaining to the Commission, whether in the United States or on the Isthmus of Panama.

2. The administration of civil government within the Canal Zone, and shall exercise, through a local administrator, the authority heretofore vested in the Governor of the Canal Zone.

The Chief Sanitary Officer shall have charge of:

1. All matters of sanitation within the Canal Zone, and also in the cities of Panama and Colon, and the harbors, etc., so far as authorized by the treaty, executive orders, and decrees of December 3, 1904 between the United States and Panama, relating thereto.

2. The custody of all medical supplies needed for sanitary purposes.

The General Purchasing Officer shall have charge of the purchase and delivery of all supplies, machinery, and necessary plant.

The General Auditor shall have charge of the general bookkeeping, of property accounts, of statistics, of administrative audit of the Commission, and of the accounting, bookkeeping, and audit of the Government of the Canal Zone.

The Disbursing Officer shall have charge of time keeping, of preparation of pay rolls and vouchers, and of payment of same.

The Manager of Labor and Quarters shall have charge of the employment of all necessary labor secured from the West India Islands or Central and South American countries; of the general personal records of all employees; of all quarters, and shall assign same to all employees of the Commission or of its contractors; and of the operation of all Commission hotels and mess houses.

APPOINTMENT OF OFFICERS.

All officers and employees shall be appointed, and their salaries shall be fixed, by the head of the department in which they are engaged. Their appointment and salaries shall be subject to the approval either of the Commission or, if the Commission is not in session, of the Chairman.

The employment of laborers where the contract of employment is made in the United States shall be negotiated and concluded by the Chairman of the Commission. Where the employment of laborers is effected upon the Isthmus or outside of the United States it shall be conducted under the supervision of the Chief Engineer, subject to the approval of the Chairman.

CONTRACTS.

Contracts for the purchase of supplies involving an estimated expenditure exceeding $10,000 shall only be made after due public advertisement in newspapers of general circulation, and shall be awarded to the lowest responsible bidder, except in the case of emergency, when, with the approval of the Secretary of War, advertising may be dispensed with. In the making of contracts for supplies or construction involving an estimated expenditure of more than $1,000 and less than $10,000 competitive bids should be secured by invitation or advertisement whenever practicable.

REPORTS.

The head of each department shall make a report upon the work and operation of his department to the Isthmian Canal Commission from time to time and as often as may be required by the Chairman of the Commission.

The Chairman of the Commission will make a report to the Secretary of War, setting forth the results accomplished by each department of the work at least annually and as often as he may deem advisable or the Secretary may require.

The Secretary of War will make to the President a report at least annually, and as often as he may deem avisable or the President may require.

All Executive orders relating to the subject of the Panama Canal, excepting so far as they may be inconsistent with the present order, remain in force.

THEODORE ROOSEVELT.

Effective this date, November 17, 1906.

T. R.

9. The Chairman reported that, in acordance with the opinion expressed by the Secretary of War that it would be wise to have filtration plants for the water systems of Colon and Panama, he had authorized the Chief Engineer to take the necessary steps to install such plants.

On motion, the action of the Chairman was approved.

10. The Chairman reported that he had approved the recommendation of the Chief Engineer that the building which was in course of construction as a residence for the Governor of the Canal Zone at Ancon be remodeled so that it could be used as an administration or general office building. The Chairman further stated that upon the completion of this building it would be possible to move all the office employees of the Commission from Panama to Canal Zone territory and permit of the disposal of the present administration building located in Panamanian territory, resulting in a considerable saving to the Commission.

Upon motion, the action of the Chairman was approved.

11. On motion duly made and seconded it was—

Resolved, That the resolution of the Commission passed at its seventy-ninth meeting, held February 20, 1905, relative to the deportation of undesirable persons from the Canal Zone, be amended so as to provide for the deportation, by the Head of the Department of Labor, Quarters, and Subsistence, of those persons who are certified by the Chief Sanitary Officer to be chronically sick, provided such persons voluntarily consent to such deportation; and the Head of the Department of Labor, Quarters, and Subsistence is hereby authorized to incur, on behalf of the Commission, the necessary expenses incident to such deportations.

12. The Chairman reported that the Government Board in charge of the Government exhibit at the Jamestown Exposition had allotted, upon the request of the Commission, a sum to meet all expenses incident to the preparation of an outdoor bas relief map of the Panama

canal, with approximate dimensions of 60 by 100 feet, with the understanding that the Commission would carry out its promise to furnish the technical data and superintend the construction of this map.

On motion it was—

Resolved, That the Engineering Committee should be requested to furnish the necessary technical data and to superintend the construction of the map.

13. The Chairman stated that, inasmuch as it was the declared policy of the Administration to provide suitable means of recreation for employees on the Isthmus, he had, after fully considering the question of the power of the Commission to use appropriations available for the construction of the canal for the purpose, authorized the proper officials to proceed with the erection of club houses, band stands, and buildings for religious and other purposes, as well as to properly maintain the same.

Upon consideration, the action of the Chairman was approved.

14. On motion duly made and seconded it was—

Resolved, That the actual bona fide employees of the Department of State on the Isthmus of Panama, who devote their entire time to the service of the Department of State, shall be placed on the same footing as are the employees of the Isthmian Canal Commission in so far as rates and prices charged by its hotel and commissary departments are concerned, such to include the new Tivoli Hotel.

15. The Chairman called attention to a letter from the Disbursing Officer at Empire, asking that all employees of the Commission who are bonded for the faithful performance of their duties in connection with timekeeping and the issuing of hotel and commissary coupon books, be bonded to the Disbursing Officer, effective January 1, 1907. On motion duly made and seconded it was—

Resolved, That such employees be so bonded to the Disbursing Officer, and that so much of the resolution contained in paragraph 7 of the minutes of the one hundred and twelfth meeting of the Isthmian Canal Commission as is in conflict herewith is revoked.

16. The Chairman reported that he had issued the following order to the heads of departments relative to the granting of sick leave to employees of the Commission on the Isthmus, which order was approved:

To Heads of Departments:

Effective this date the annual leave of absence allowed to employees of the Isthmian Canal Commission shall not be extended by the allowance of additional sick leave with pay. Sick leave with pay, not to count as part of the annual leave of absence, will only be granted in necessary cases to employees recuperating upon the Isthmus.

T. P. Shonts,
Chairman, Isthmian Canal Commission.

Ancon, *November 12, 1906.*

17. The Chairman reported that at a conference between himself and the heads of departments on the Isthmus, held November 26, 1906, it was decided to abolish commutation of quarters to native employees.

Upon motion, this action was approved.

18. The Chairman presented a cablegram from the Chief Engineer, dated January 9, 1907, recommending that a rule be made, effective January 15, 1907, that no application from new employees for married quarters be received until such employees have been in the service on the Isthmus six months.

Upon consideration it was—

Resolved, That no application for married quarters or family quarters will be received until an employee has been in the service on the Isthmus for at least six months.

19. The Chairman stated that he had received an application from Mr. Rufus A. Lane, Chief, Bureau of Municipalities, requesting that he be not required to return to the Isthmus to secure payment of salary from December 17, 1906, to February 21, 1907, he having been granted leave of absence with pay for that period.

Upon motion, and in accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, the Disbursing Officer at Washington was authorized to pay Mr. Lane salary from December 17, 1906, to February 21, 1907, inclusive, at the rate of $3,600 per annum.

20. The Chairman presented a communication from the Chief Sanitary Officer, dated January 5, 1907, recommending that Mr. R. I. Smith, an employee in his Department, be paid in the United States for six weeks' leave of absence, effective October 19, 1906, without the necessity of returning to the Isthmus, his resignation taking effect at the expiration of such leave.

In accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, payment for such leave was approved.

21. The Chairman presented a communication from Mr. Charles H. Baker, dated at New Orleans, La., January 18, 1907, an employee in the Department of Law and Government, requesting that he be paid in the United States for forty-two days' leave of absence, effective December 31, 1906, without the necessity of returning to the Isthmus.

In accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, payment for such leave was approved.

22. In view of the decision of the Secretary of War, which was laid before the Commission by the Chairman, that the Panama Railroad Company should pay 40 cents per 1,000 gallons for the water it consumes from the Commission's plant, less (1) a reasonable reduc-

tion for not using the sewerage, and (2) a reasonable reduction if it uses enough water to be a wholesale consumer, it was—

Resolved, That the resolution of the Commission, adopted at its one hundred and fourteenth meeting, held September 6, 1906, fixing a charge to the Panama Railroad Company of 11 cents per 1,000 gallons for water consumed by it from the Commission's plant, be hereby rescinded, and that the decision of the Secretary of War above cited be made the basis of future charges.

23. The Chairman presented for consideration the letter of the Governor of the Canal Zone, dated September 10, 1906, transmitting the request of the Chief Sanitary Officer that he be authorized to invite Maj. Ronald Ross, of the Liverpool School of Tropical Medicine, to visit the Isthmus at the expense of the Commission, with a view to examining the situation on the Isthmus from a sanitary point of view, which had been considered by the Commission at its one hundred and fifteenth meeting, held November 15, 1906, and referred to the General Counsel for an opinion as to whether or not the Commission had funds available for such purpose. As the General Counsel reported that under current decisions the funds of the Commission seemed to be available for such purpose, it was—

Resolved, That in view of the reasons set forth in the request of the Chief Sanitary Officer, under date of August 9, 1906, and the favorable indorsement of the Governor of the Canal Zone, under date of September 10, 1906, the Chief Sanitary Officer be authorized to extend to Major Ross, if he so desires, an invitation to inspect the health conditions on the Isthmus at the expense of the Commission.

The letters of the Governor of the Canal Zone and of the Chief Sanitary Officer, referred to above, are as follows:

GOVERNMENT OF THE CANAL ZONE,
EXECUTIVE OFFICE,
Ancon, September 10, 1906.

SIR: I inclose herewith a copy of a letter addressed to me by the Chief Sanitary Officer, together with a copy of my reply. I consider that it would be greatly to the advantage of the Commission to have Doctor Ross visit the Isthmus for the purpose of looking over the work accomplished by the Health Department, and ask that you will bring the matter before the Commission at its next meeting, and will ask the Commission to grant the necessary authority.

Very respectfully,

CHARLES E. MAGOON, *Governor.*

The honorable the CHAIRMAN OF THE COMMISSION.
Washington, D. C.

ISTHMIAN CANAL ZONE, DEPARTMENT OF HEALTH,
OFFICE OF CHIEF SANITARY OFFICER.
Ancon, Canal Zone, August 9, 1906.

SIR: Some two years ago Maj. Ronald Ross, of the Liverpool School of Tropical Medicine, paid me a visit down here and looked over the ground, and made a report to the Commission of what he thought should be done.

Major Ross is the greatest living authority on tropical malaria. He is the man to whom is principally due the discovery that the mosquito transmits malaria. He is consulted very generally about topics of this kind. He was asked by the Suez Canal Company to make recommendations with regard to eradicating malaria from Ismaysia. For such work he receives large fees. To the Commission he made no charge for his services.

I would like to have Major Ross come again, not with the idea of consulting him professionally, but that he might look over the ground and see what we are accomplishing. I think it would be an advantage to the Commission to have a man of his standing in the sanitary world see our work down here. I would like to invite him to come as my guest when he can spare the time. He is a professional man of moderate means, and I know could not afford such a trip merely for the pleasure of a visit. I would like to be able to say to Doctor Ross that the Commission would pay the expense of such a trip from Liverpool to New York and furnish him transportation from New York to Panama if he should conclude to visit us.

Very respectfully, yours,

W. C. GORGAS,
Chief Sanitary Officer.

To the GOVERNOR OF THE CANAL ZONE,
Ancon, Canal Zone.

GOVERNMENT OF THE CANAL ZONE,
EXECUTIVE OFFICE.
Ancon, September 10, 1906.

SIR: Referring to your letter of August 9, respecting your desire to have Maj. Ronald Ross, of the Liverpool School of Tropical Medicine, come to the Isthmus, with a view to having him look over the situation on the Isthmus from a sanitary standpoint, I have to say that I am advised by the Local Auditor that there is no legal objection, in his opinion, to the expenditure of Commission funds for the payment of Doctor Ross' expenses from Liverpool to the Isthmus and return. I will therefore bring the matter before the Commission, with a request that the Commission authorize the payment. You will be advised of the action by the Commission, authorizing such payment.

Respectfully,

CHARLES E. MAGOON,
Governor.

Col. W. C. GORGAS, U. S. Army,
Chief Sanitary Officer, Panama.

There being no further business, the meeting adjourned subject to the call of the Chairman.

ONE HUNDRED AND TWENTIETH MEETING.

WASHINGTON, D. C., *February 13, 1907.*

In accordance with the order of the President, the quarterly meeting of the Isthmian Canal Commission was held in Washington, D. C., instead of on the Isthmus of Panama.

Present: Commissioners Shonts (Chairman), Endicott, Hains, and Harrod, and Secretary Bishop. General Counsel Rogers was present by invitation.

1. The minutes of the one hundred and nineteenth meeting were read and approved.

2. The Chairman presented for consideration a letter dated Culebra, January 14, 1907, from the Head of the Department of Labor, Quarters, and Subsistence, in which he submitted a new set of rules to cover leave of absence and sick leave in accordance with the conference held by the heads of the various Departments on the Isthmus, November 26, 1906. He also stated that in view of the proposed changes in the conditions governing employment it will be necessary to reappoint all gold employees now in the service, in order that these rules may be applicable to them.

The Chief Engineer cabled on February 12 approval of the proposed changes with the request that new conditions governing applications for married quarters be added and that the regulations be made effective not later than April 1. Upon motion of the Chairman it was—

Resolved, That the following general conditions of employment in which salaries are fixed in United States currency be adopted for employees located on the Isthmus of Panama, the same to be made effective on or before April 1, 1907, at the discretion of the Chief Engineer:

GENERAL CONDITIONS OF EMPLOYMENT IN WHICH SALARY IS FIXED IN UNITED STATES CURRENCY.

SERVICE MUST BE SATISFATORY TO THE HEAD OF DEPARTMENT IN WHICH EMPLOYED, AND EMPLOYEES ARE SUBJECT TO THE REGULATIONS OF THE COMMISSION.

The compensation of an employee at the rate specified in his provisional appointment will begin upon the date of embarkation at port of departure from the United States, but no payment upon account of salary accrued from the date of departure until the date of actual duty on the Isthmus shall be made until after thirty days' service on the Isthmus. This provision, however, applies only to resignations and not to discharges or other separations from the service which are beyond the employee's control. An employee appointed with rate of pay per hour will be paid, as above set forth, on a basis of an eight-hour day up to the time of his actually entering upon the performance of his duties on the Isthmus.

An employee will be granted free transportation from port of departure in the United States, which includes meals on the steamer,

but will be required to pay all the expenses of the journey to such port, which are not to be refunded.

A former employee reengaged for duty on the Isthmus will be paid compensation only from the date of his reentry into service on the Isthmus, and he will be charged the Government rate on the steamers of the Panama Railroad and Steamship Company operating between the United States and Colon.

Members of the immediate family of an employee, upon request, when the exigencies of the steamship service permit, will be granted the Government rate on the steamers of the Panama Railroad and Steamship Company operating between the United States and Colon. No charge will be made for children under 6 years of age, and half rates will be charged for children between the ages of 6 and 12 years. An employee will not be permitted to take his family to the Isthmus until he has first gone there and secured quarters for them. No application for married quarters will be received until an employee has been in the service on the Isthmus for six months.

The assignment to duty is vested in the head of the department in which employed, and an employee is expected to perform such duties as may be assigned to him by competent authority.

Where practicable and in the best interests of the service, an employee will be provided with such quarters on the Isthmus as may be available from time to time.

An employee whose salary is fixed on an annual or monthly basis will receive no pay for overtime work. Such employee may be granted, in the discretion of the head of the department in which employed, with the approval of the Chairman, or the Chief Engineer in the absence of the Chairman from the Isthmus, or of a representative designated by either of them, leave of absence for each twelve months' service, as follows:

Six weeks' leave of absence with pay, if said leave is to be taken in the United States, or thirty days' leave with pay if leave is to be taken outside of the United States. This leave is not to be cumulative for more than one year, and may be granted any time after ten months' service; no portion of same to be allowed, however, until the completion of the required ten months' service.

If such leave be granted, an employee will be furnished the Government rate on the steamers of the Panama Railroad and Steamship Company operating between the United States and Colon. This grant of leave of absence is not a vested right, but is made to promote the welfare and interests of the service, and compensation for the period of leave will not be payable until the first pay period after the employee returns to the Isthmus and resumes his duties.

If an employee, after ten months' service, shall have been declared by a medical examining board of the Department of Health to be physically unfit for further service upon the Isthmus, or, after ten months' service, he shall have been discharged on account of reduction of force, he may, at the discretion of the head of the department in which employed, with the approval of the Chairman, or the Chief Engineer in the absence of the Chairman from the Isthmus, or of a representative designated by either of them, be granted six weeks' leave of absence with pay, and may be paid in the United States for this period of leave without returning to the Isthmus.

Employees not reporting for duty within ten days after expiration of leave will forfeit right to pay for leave period.

An employee whose compensation while on duty carries with it subsistence will not be entitled to subsistence, or commutation in lieu thereof, while on leave of absence.

An employee whose compensation while on duty carries with it quarters will not be entitled to quarters, or commutation in lieu thereof, while on leave of absence.

All employees on the gold rolls shall be entitled to sick leave with pay, as follows:

Upon the certification of an authorized physician in the service of the Department of Health of the Isthmian Canal Commission in the Canal Zone, that the employee has been unable to work on account of illness or injury, payment for not to exceed fifteen days for each period of six months' continuous service may, by direction of the head of the department in which employed, with the approval of the Chairman, or the Chief Engineer in the absence of the Chairman from the Isthmus, or of a representative designated by either of them, be made; such payment to be shown on the first pay roll after the expiration of the six months' period of continuous service for which sick leave is granted, and then only when the time rolls of the Commission show that the employee has worked 96 per cent of the legal working days or hours, or those declared to be legal by the Commission, during the period, less the time the employee is absent from duty on account of sickness, which must be properly certified to, or through orders, other than disciplinary ones, of an authorized officer of the Commission.

The amount of compensation to be paid any employee to whom sick leave is granted, under the conditions as herein mentioned, will be calculated at the rate at which such employee is carried on the rolls of the Commission at the time of said illness, and in the case of an employee working on an hourly basis such calculation shall be based upon a day of the legal working hours. No leave on account of illness as above described shall be cumulative.

An employee may be granted, in the discretion of the head of the department in which employed, with the approval of the Chairman, or the Chief Engineer in the absence of the Chairman from the Isthmus, or of a representative designated by either of them, such sick leave on account of injury incurred in the performance of duty, not exceeding thirty days in any current year, as may be necessary while such employee is incapacitated from duty by reason of such injury. The amount of compensation to be paid an employee to whom sick leave on account of injury is granted, under these conditions, will be calculated at the rate at which such employee is carried on the rolls of the Commission at the time of his injury; and in the case of an employee appointed with rate of pay per hour, such calculation shall be based upon an eight-hour day. Such sick leave on account of injury, as herein mentioned, may be granted to an employee in addition to the sick leave above provided. Such sick leave on account of injury shall not be cumulative, and payment for same will be made on the first pay roll following its authorization.

Free medical and hospital attendance in case of illness, is provided, and free transportation to a port in the United States upon the termination, by or at the instance of the Commission, of satisfactory

service, the character and length of such service to be determined by the head of the department in which employed.

The compensation of an EMPLOYEE APPOINTED WITH RATE OF PAY PER HOUR, after entering upon the performance of his duties, will be based upon an eight-hour day, with time and a half for overtime, including Sundays. All employees whose compensation is fixed on an hourly basis, and who receive a wage of 56 cents United States currency per hour, or more, and who are carried on the rolls prior and subsequent thereto, will be allowed pay for the following holidays: January 1, February 22, May 30, July 4, Labor Day, Thanksgiving Day, and December 25. If such employees render actual service on these holidays they will be allowed time and one-half in addition to pay for such holidays. An employee appointed with rate of pay per hour will not be entitled to leave of absence with pay, except such sick leave and sick leave on account of injury as may be granted him as hereinbefore provided.

3. The Chairman laid before the Commission a memorandum adjusting the obligations and duties of the Isthmian Canal Commission and the Panama Railroad Company to each other with respect to repairs of equipment and of damages due to wrecks. After discussion it was voted that the plan presented be referred to the Chief Engineer for approval.

4. The Chairman presented a letter from the Chief Sanitary Officer, dated January 30, 1907, recommending that Dr. Raoul Amador, recently appointed as a physician at Santo Tomas Hospital, and placed on the rolls of the Sanitary Department, be allowed to practice as a physician outside the hospital. The Chief Sanitary Officer gave as his reasons for recommending that an exception be made in this case that Doctor Amador's position is special, is entirely for the benefit of the Panamans, that he will not practice at all among Commission employees, and that he ultimately expects to settle in the city of Panama.

Upon motion duly made and seconded, it was—

Resolved, That, in view of the recommendation of the Chief Sanitary Officer, and for the reasons above given, authority is hereby granted Dr. Raoul Amador to practice his profession outside of Santo Tomas Hospital, provided that he shall not practice on his own account among Commission employees.

5. The Chairman presented a communication from the Chief Engineer, dated January 25, 1907, recommending that Mr. J. G. Sullivan, Assistant Chief Engineer in the Department of Construction and Engineering, be paid in the United States for forty-nine days' leave of absence, effective December 1, 1906, without the necessity of returning to the Isthmus, his resignation taking effect at the expiration of such leave.

In accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, payment for such leave was approved.

6. The Chairman presented a communication from the Chief Sanitary Officer recommending that Dr. Jean P. Lacroisade, a former employee in the Department of Government and Sanitation, who had been granted twelve weeks' leave of absence with pay, commencing August 1, 1906, be paid for such leave of absence without the necessity of returning to duty on the Isthmus, his resignation having been accepted to take effect at the expiration of such leave.

In accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, payment for such leave was approved.

7. The Chairman stated that he had received an application from Mr. J. M. Keedy, Attorney for the Isthmian Canal Commission, requesting that he be not required to return to the Isthmus to secure payment of salary from October 9, 1906, to November 28, 1906, he having been granted leave of absence with pay for that period.

Upon motion, and in accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, the Disbursing Officer at Washington was authorized to pay Mr. Keedy salary from October 9, 1906, to November 28, 1906, inclusive, at the rate of $5,000 per annum.

8. The Chairman presented a communication dated December 26, 1906, referred to him by the Head of the Department of Law and Government, received from Mr. V. H. Pinckney, an employee in the Department of Law and Government, tendering his resignation, to take effect at the expiration of his leave of absence for fifty-two days, granted him effective December 1, 1906, and requesting that he be paid, in the United States, his salary for his leave of absence period. The Head of the Department of Law and Government stated that Mr. Pinckney's resignation had been accepted, and recommended that payment be made in the United States of his leave of absence pay.

In accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, payment for such leave was approved.

9. The Chairman brought to the attention of the Commission the necessity during his absence of executing contracts on behalf of the Commission for the purchase of material and supplies. Upon motion it was—

Resolved, That the Secretary of the Commission, Chief of Office or General Purchasing Officer, each or either of them, is hereby authorized to execute contracts on behalf of the Commission for the purchase of material and supplies during the absence or disability of the Chairman of the Commission.

There being no further business, the meeting adjourned, subject to the call of the Chairman.

ONE HUNDRED AND TWENTY-FIRST MEETING.

NEW YORK, *February 27, 1907.*

In pursuance to the call of the Chairman, the one hundred and twenty-first meeting of the Isthmian Canal Commission was held at the offices of the Panama Railroad Company, 24 State Street, New York City.

Present: Commissioners Shonts (Chairman), Endicott, Hains, and Harrod.

1. The Chairman laid before the Commission a communication from the President of the United States, under date of February 26, 1907, which reads as follows:

SIR: I have considered with much care the question whether the Commission should accept one of the bids for the construction of the Panama Canal under the proposed contract or should reject them all. There were two bids worthy of consideration. The bid of the McArthur Syndicate at 12½ per cent was the only one which came within the requirements. The Oliver and Bangs bid, at 6¾ per cent, was rejected as not satisfying the specifications of the invitation. Mr. McArthur and his associates not objecting, and preferring this course to an invitation for new bids, Mr. Oliver was allowed to perfect his bid with new associates and new financial responsibility; but this permission did not in any way change the situation from what it would have been had Mr. Oliver's bid in its present form been presented on January 12, the day fixed for receiving the bids. Under the invitation for bids, the reserve power exists in the Commission to reject all bids, and the first question is whether it shall do so. The purpose of the contract was to secure, in the building of the canal, the services of the best, most experienced, and most skilled contractors in the country, at the least risk to them and at the least expense to the Government. An investigation into the two bids above mentioned shows that this purpose of the Government has failed. In each bid the contractors of experience, whose personal services in the work are what the Commission has sought, have made arrangements to divide the profits, under the percentage bid, with bankers or others to whom the contractors have had to look for the needed capital; so that the contractors who are actually to do the work have arranged to accept a comparatively small proportion of the profits accruing under the contract. In other words, the Government by this arrangement is made to pay a high percentage for the use of capital which it might itself have furnished at a much lower rate, while the percentage which the contractors are to receive for the real benefit they are to confer on the Government is reduced to very meager and perhaps inadequate compensation. No contract can ultimately operate to the benefit of the Government in which the contractors' energy, skill, experience, and personal supervision of the work are not adequately paid for. The defect in the bids which I have described, and which our investigation has made apparent, may be due to a defect in the invitation for bids, which, perhaps, stipulated for too heavy a bond and the investment of too large capital by the contractors, or it may be because the bidders have taken an entirely different view of the money risk involved from that taken by the Government. Mr. Stevens, the Chief Engineer, who proposed the form of contract, which, with modifications, was adopted, advises against accepting either bid, because acceptance of either would not, in his judgment, accomplish the purpose which he sought. The considerations stated are by themselves sufficient to require a rejection of all bids and a change in the proposed form of contract.

One of the chief reasons for adopting the contract as proposed was that in its main features it was formulated by Mr. Stevens, who was expected to supervise the work as Chief Engineer. He had had experience with contracts of this character and he had had eighteen months' actual experience with the work on the Isthmus. Less than ten days ago I received a letter from Mr. Stevens in which he asked to be entirely relieved from work on the canal as soon as he could be replaced by a competent person and that person could become familiar with the work. I have accepted his resignation. The withdrawal of Mr. Stevens takes away the special reason mentioned for proceeding under the present form of contract.

In order to secure continuity in engineering control and management in the future, I have decided to request you to assign to the office of Chief Engineer, Major Goethals, a member of the Corps of Army Engineers. It is not my purpose by requesting this appointment to disturb in any way the present organization on the Isthmus, which is very satisfactory, nor to interfere with the admirable work now being done by the present Assistant Chief Engineer, Mr. Ripley, and the various heads of Departments. The work of construction is going on well and will continue to do so. The organization already created is increasing the excavation each month, and can be relied upon under competent leadership to make further and constant progress pending a period within which a new form of contract can be devised by Major Goethals and his associates, if it is deemed advisable to do the work by contract. The services of the same high-class contractors whose bids we are now rejecting or others of similar standing, may then be invoked in the interest of economy and speed.

Two other competent members of the Engineer Corps, Major Gaillard and Major Sibert, will accompany Major Goethals to the Isthmus, and assist him in his labors. They will be appointed on the Commission.

Major Goethals concurs with Mr. Stevens in advising me that all bids on the present form of contract should be rejected.

I request the Commission to take the formal action necessary to reject the McArthur and Oliver bids, in accordance with the power reserved to it in its invitation.

Very respectfully, yours,

THEODORE ROOSEVELT.

To the CHAIRMAN OF THE ISTHMIAN CANAL COMMISSION,
Washington, D. C.

Upon motion duly made and seconded, it was thereupon unanimously

Resolved, That all bids for the completion of the construction of the Isthmian Canal submitted under the invitation for bids issued by the Commission October 9, 1906, and reissued December 12, 1906, be, and the same are hereby, rejected.

Resolved further, That the General Counsel of the Commission officially notify the bidders of this action, and return to them all certified checks or certificates of deposit deposited with the Commission to qualify bidders, and arrange for the cancellation of qualifying bonds of other bidders.

Resolved further, That Maj. G. W. Goethals, Corps of Engineers, U. S. Army, be appointed Chief Engineer for the Commission, vice John F. Stevens, resigned.

There being no further business, the meeting adjourned, subject to the call of the Chairman.

ONE HUNDRED AND TWENTY-SECOND MEETING.

ANCON, CANAL ZONE, *March 27, 1907.*

Col. Geo. W. Goethals executed the statutory oath as Commissioner on March 5, 1907.

Maj. D. D. Gaillard, Maj. Wm. L. Sibert, and Mr. Jackson Smith executed the statutory oath as Commissioners on March 27, 1907.

Col. William C. Gorgas executed the statutory oath as Commissioner on March 14, 1907.

Mr. Harry H. Rousseau executed the statutory oath as Commissioner on March 26, 1907.

Present: Commissioners Stevens (Chairman), Goethals, Gaillard, Sibert, Rousseau, Gorgas, and Smith.

The Chairman advised that he had brought Mr. E. P. Shannon, his Secretary, to act as Secretary. Mr. Shannon was then unanimously elected Acting Secretary of this meeting.

1. The minutes of the one hundred and twentieth and one hundred and twenty-first meetings were then read and approved.

2. Whereas the expenditure of the sum of $55,000 for the repair of the Santo Tomas Hospital and the construction of new buildings in connection therewith, as authorized at the eighteenth meeting of the Executive Committee, in addition to the sum of $85,000, Panamanian silver, turned over to the Commission by the Government of the Republic of Panama for this purpose, has been found insufficient to cover the work contemplated, it is

Resolved, That the further sum of $20,000 be, and hereby is, authorized to be expended in the rehabilitation of Santo Tomas Hospital, in addition to any sum heretofore authorized for this work.

3. The Chairman laid before the Commission a letter, under date of March 26, from the Chief Engineer, in which he called attention to the fact that the eight electric cranes which the Panama Railroad were installing on a certain wharf at La Boca were purchased by the Panama Railroad, and which wharf, with the necessary equipment, is now being leased to the Panama Railroad at a certain rental. Inasmuch as it is not the intention to have the Panama Railroad own any of the equipment on this dock, upon motion it was

Resolved, That the Panama Railroad shall complete the installation of the electric cranes and that the Isthmian Canal Commission shall reimburse the Panama Railroad Company for the cost thereof, including the cost of erection.

4. The Chairman laid before the Commission the following letter, under date of March 26, from the Chief Engineer, relative to the general conditions of employment:

Referring to the minutes of the meeting of the Isthmian Canal Commission, one hundred and twentieth meeting, held in Washington, D. C., February 13, 1907.

The resolution fixing the general conditions of employment in which salaries are fixed in United States currency, which was adopted, governing employees located on the Isthmus of Panama, directed that these conditions be made effective on or before April 1, 1907, at the discretion of the Chief Engineer.

I have the honor to inform you that the time when these conditions are to be made effective has been fixed by the Chief Engineer as of April 1, 1907:

Upon motion, it was

Resolved, That the general conditions of employment in which salaries are fixed in United States currency, as contained in the one hundred and twentieth meeting, be made effective April 1, 1907.

5. The Chairman laid before the Commission a letter from the Chief Engineer, under date of March 26, recommending that the special classification of the clerical force upon the Isthmus, which was adopted at the twenty-fourth meeting of the Executive Committee of the Isthmian Canal Commission, held August 3, 1906, be changed. Upon motion, it was

Resolved, *Class D, special, $3,000 per year.*—This class covers the position on the Culebra Division now known as Time Clerk, and hereafter the person holding this position will be designated as Chief Timekeeper of the Culebra Division.

6. The Chairman laid before the Commission a letter, under date of February 16, from the Chief Sanitary Officer recommending that a new census be taken at as early a date as possible, in order to have a correct basis of all statistics. Upon motion, it was

Ordered, That the Head of the Department of Law and Government give instructions to have an accurate census of the Zone, including Panama and Colon, taken at as early a date as possible by such an organization as he thinks necessary to properly do the work.

7. The Chairman laid before the Commission a memorandum adjusting the obligations and duties of the Isthmian Canal Commission and the Panama Railroad Company to each other with respect to the repairs of equipment and of damages due to wrecks.

Upon motion, it was

Resolved, That the plan of adjustment set forth in said memorandum be approved in the form submitted, and that the disbursing and accounting officers of the Commission be guided accordingly.

Memorandum for the adjustment of repairs and cost of wrecks between the Isthmian Canal Commission and the Panama Railroad Company.

1. Interchangeable equipment. Repairs to interchangeable equipment, i. e., equipment used jointly by the Isthmian Canal Commission and the Panama Railroad Company, shall be made and paid for by the Railroad Company if the equipment is made "bad order" upon the Railroad Company's tracks, and by the Commission if the equipment is made "bad order" upon the Commission's tracks.

2. Rolling stock, steam shovels, and motive power of the Commission used by the Railroad Company, or the Railroad Company by the Commission. Wherever the Commission has in its service rolling stock, steam shovels, or any motive-power equipment of the Railroad Company, operated for the time being exclusively for the

Commission's own use, it shall maintain the same at its own expense and turn the same back to the Railroad Company in as good condition as when received, ordinary wear and tear excepted. This obligation shall extend to making repairs of such rolling stock and equipment, even though made "bad order" upon the tracks of the Railroad Company. The same rule shall apply as to similar equipment of the Commission in the exclusive service of the Panama Railroad Company.

3. Panama Railroad Company equipment used exclusively by the Commission for its own use, which is made "bad order" upon the Panama Railroad Company's tracks, shall be returned to the Commission for repairs at the Commission's expense; but if this should be impracticable and the repairs should be made outside of the Commission's shops by the Railroad Company, the cost of such repairs shall be reimbursed to the Railroad Company by the Commission. The same rule shall apply to the Panama Railroad Company with respect to any Commission equipment used by it.

4. Wrecks. When wrecks are caused upon the Panama Railroad Company's tracks by work trains regularly in the service of the Commission, the expense of repairing the wreck shall be charged to the Commission. When wrecks are caused on Isthmian Canal Commission tracks by Panama Railroad engines or Panama Railroad trains in the service of the Panama Railroad Company, the cost of repairing the wrecks shall be charged to the Panama Railroad Company. The cost of repairing wrecks caused by construction trains employed in double tracking the Panama Railroad shall be paid by the Railroad Company, but may be charged to the expense of double tracking, to be reimbursed to the Railroad Company by the Commission. In all cases where repairs are made or wrecking done, or tracks repaired as a consequence of wrecks by the Railroad Company, where under the terms of this memorandum the Commission is responsible for the cost, the cost shall be reimbursed to the Railroad Company by the Commission. The same rule shall be applied with respect to repairs made and wrecking done by the Commission where the primary liability for cost rests with the Panama Railroad Company.

8. The Chairman presents for consideration a letter from Dr. John A. Wyeth, under date of February 6, to the Chief Sanitary Officer, inviting the latter to attend a meeting of the New York Academy of Medicine, New York City, October 3, 1907.

As, in the opinion of the General Counsel of the Commission, the funds of the Commission are properly available for such purposes, it is

Resolved, That, in view of the benefits which would seem to be derived from the Chief Sanitary Officer attending this meeting, the Chief Sanitary Officer is authorized to make the trip as set forth in the correspondence.

9. The following Executive orders of the President, orders of the Secretary of War, and cablegram of the Chief Engineer, under date of March 5, were read and ordered spread on the minutes:

WAR DEPARTMENT,
Washington, February 21, 1907.

The action of the Isthmian Canal Commission since March 4, 1905, in increasing from time to time the salaries of the employees of the Canal Zone Government is hereby approved.

By order of the President:

WM. H. TAFT,
Secretary of War.

WAR DEPARTMENT,
Washington, February 28, 1907.

All acts and resolutions of the Isthmian Canal Commission passed since March 4, 1905, in so far as they effect changes in the "Laws of the Canal Zone," or other enactments of the Commission relative to the Government of the Canal Zone prior to March 4, 1905, are hereby approved.

By order of the President:

WM. H. TAFT,
Secretary of War.

WAR DEPARTMENT,
Washington, February 28, 1907.

The action of the Isthmian Canal Commission, under date of October 7, 1905, approving a resolution of the Executive Committee passed at a meeting thereof on August 2, 1905, providing that the premiums on surety bonds of employees of the Isthmian Canal Commission, other than disbursing officers, shall be paid out of the appropriation for the construction of a canal connecting the Atlantic and Pacific oceans, and the action of the Commission, at its meeting of July 5, 1906, providing that all employees of the Isthmian Canal Commission, including the Government of the Canal Zone, who disburse or collect moneys of the United States Government, and all officers or employees required to give bond, as provided in the laws of the Canal Zone Government, be required to give bond for the faithful performance of their duties, in some corporate surety company to be designated by the Chairman of the Commission, in such amounts as the head of the department under which they are employed shall consider proper, are hereby ratified and approved, anything contained in the "Laws of the Canal Zone" or other enactments of the Canal Commission relative to the Canal Zone Government, prior to March 4, 1905, to the contrary notwithstanding.

By order of the President:

WM. H. TAFT,
Secretary of War.

WAR DEPARTMENT,
Washington, March 4, 1907.

By direction of the President, it is hereby ordered that Joseph B. Bishop, Secretary of the Isthmian Canal Commission, be, and is hereby, placed in charge of the Washington office of the Commission until further order.

WM. H. TAFT,
Secretary of War.

THE WHITE HOUSE,
Washington, D. C., March 4, 1907.

John F. Stevens is hereby appointed Chairman of the Isthmian Canal Commission, vice Theodore P. Shonts, resigned, to take effect this day.

Lieut. Col. George W. Goethals, U. S. Army Engineers, is hereby appointed a member of the Isthmian Canal Commission, vice John F. Stevens, appointed Chairman thereof.

These appointments are made after the adjournment of Congress and are recess appointments.

Chairman Stevens will receive no other salary than that which he now receives as Chief Engineer, to wit, $30,000 a year.

Lieutenant-Colonel Goethals will receive compensation at the annual rate of $15,000 a year, including his pay as a Lieutenant-Colonel of Engineers. The difference between $15,000 and his pay as a Lieutenant-Colonel of Engineers will be paid out of the appropriation for the construction of the Panama Canal.

THEODORE ROOSEVELT.

WAR DEPARTMENT,
Washington, March 4, 1907.

MY DEAR SIR: By direction of the President, I have made the following order with respect to the temporary management of the Washington office pending reorganization:

"By direction of the President, it is hereby ordered that Joseph B. Bishop, Secretary of the Isthmian Canal Commission, be, and is hereby, placed in charge of the Washington office of the Commission until further order.

"WM. H. TAFT,
"*Secretary of War.*

"MARCH 4, 1907."

Kindly have the same incorporated in your minutes to show the authority of Mr. Bishop.

Very respectfully, yours,

WM. H. TAFT,
Secretary of War.

JOHN F. STEVENS, Esq.,
Chairman, Isthmian Canal Commission,
Culebra, Panama.

[Cablegram.]

CULEBRA, *March 5, 1907.*

JOS. B. BISHOP, *Isthmian, Washington:*

Effective this date you will take entire charge of Washington office, reporting to Chairman.

Make thorough examination of office administration and take any steps that may be practicable to effect reduction of expenses without impairing efficiency.

J. F. STEVENS.

EXECUTIVE ORDER.

By authority of the President, it is ordered:

That the patent, trade-mark, and copyright laws of the United States of America are hereby extended to and made effective within the Canal Zone to the extent that any patent or copyright issued under the laws of the United States, or any trade-mark duly registered in the Patent Office of the United States, shall vest in the person to whom issued or in whose name registered, his assigns and licenses, subject to the protection of the Circuit and Supreme Courts of the Canal Zone, the same exclusive right of property therein that such person would possess in the United States.

Effective April 15, 1907.

WM. H. TAFT,
Secretary of War.

WAR DEPARTMENT,
Washington, D. C., March 12, 1907.

EXECUTIVE ORDER.

By order of the President, Mr. B. S. Ambler and Mr. Montgomery Blair are hereby appointed members of a joint Commission, provided for by Articles VI and XV of the Treaty between the United States and the Republic of Panama of February 26, 1904.

They will be present upon the Isthmus on or before April 4, 1907.

They will receive an allowance of $15 per day for their services from the time they leave the United States until they return there, and their actual traveling expenses and subsistence during the same period of time.

WM. H. TAFT,
Secretary of War.

WAR DEPARTMENT,
Washington, D. C., March 12, 1907.

EXECUTIVE ORDER.

Under authority vested in me by law, it is ordered:

1. The Canal Zone, Isthmus of Panama, shall be divided into four administrative districts, to be known as Ancon, Emperador, Gorgona, and Cristobal. The districts of Ancon and Emperador shall be coextensive with the present municipal districts of Ancon and Emperador. The district of Gorgona shall be composed of the present municipal district of Gorgona and that portion of the municipal district of Buenavista lying south and east of a straight line passing through the center of the Panama Railroad Company's Bridge No. 38 over the Agujeta River and intersecting the boundaries of the Canal Zone with an inclination of 40 degrees east of the magnetic meridian. The district of Cristobal shall be composed of the present municipal district of Cristobal and that portion of the municipal district of Buenavista lying north and west of a straight line passing through the center of the Panama Railroad Company's Bridge No. 38 over the Agujeta River and intersecting the boundaries of the Canal Zone with an inclination of 40 degrees east of the magnetic meridian.

2. In each district there shall be appointed a tax collector, who shall discharge the duties of the present municipal Treasurer and Board of Assessors. He shall be charged with the collection of license taxes, the assessment and collection of all *ad valorem* taxes, the preparation of head lists for work upon public improvements and the issuance of citations and collection of commutation taxes thereunder, the keeping of the civil register, the collection of rents from public and municipal property, the execution of leases thereof under direction of the Collector of Revenues, and in the proper case, with the approval of the Chief Executive of the Canal Zone, the execution of deeds therefor. He shall also represent the municipality in all necessary litigation affecting municipal property within his district, and shall from time to time discharge such other duties of a public nature as may be assigned to him by the duly authorized authorities of the Canal Zone. He shall keep books or rolls showing all assessments made, taxes and rents due, and collections made, and shall give such bond as may be required of him. He shall report to the Collector of Revenues and deposit all funds as he may be required with the Treasurer of the Canal Zone.

3. The existing regulations concerning the assessment and collection of taxes and the enforcement of the tax liens shall be followed and applied by the tax collector as far as the same are not inconsistent with the terms of this order. Unpaid taxes of every character shall constitute a personal claim against the person against whom they are levied, and taxes upon real property shall, in addition, until paid constitute a lien upon the realty. With respect to *ad valorem* taxes or other taxes levied by

assessment, an appeal shall be allowed to the Circuit Judge for the district following a procedure to be prescribed by the Circuit Judges by the owner or occupant in all cases where the assessment may be thought to be unduly high, and by the Collector of Revenues in all cases where it may be thought to be unduly low, when compared with assessments made upon similar property similarly situated elsewhere in the Zone. For the purpose of equalizing assessments in the several districts, the three Circuit Judges shall once a year sit as a Board of Equalization.

4. There shall be appointed in each district a district judge, who shall exercise all the authority now exercised by the municipal judges and shall discharge such other duties as may from time to time be imposed upon him by law or Executive order. There shall also be appointed for the whole Zone a fifth district judge, to be known as the Senior District Judge, who shall sit wherever required of him, and who shall once a month preside at and keep minutes of a conference of all the district judges at which matters of common interest pertaining to their office shall be discussed. Any district judge may temporarily be assigned to sit in any other district. Fines and fees shall be accounted for to the Collector of Revenues and paid in to the Treasurer of the Canal Zone.

5. Public works and improvements in the several districts shall be under the charge and direction of a Superintendent of Public Works, appointed for the whole Zone, who shall also have charge and direction of slaughterhouse and market inspectors, and shall discharge such other duties of a public character relative to the various districts as may be assigned to him.

6. Accounts shall be kept by the Collector of Revenues with each district, and public improvements shall be distributed among the several districts, with due regard to the revenue derived from each district. Rents derived from municipal property shall in all cases be expended upon public improvements or schools within the district from which it is collected.

7. Ordinances regulating police, sanitation, and taxation, and any other matters now regulated by ordinance may be enacted, and existing ordinances may be repealed by the Isthmian Canal Commission, with the approval of the Secretary of War. They may be made operative throughout the Zone, or confined to any particular district.

8. The municipal councils and all other municipal offices now existing under the laws of the Canal Zone are abolished.

9. The district officers herein provided for shall be appointed and their salaries fixed by the Chief Executive of the Canal Zone, subject to approval of the Commission.

10. The rules and regulations of the Isthmian Canal Commission, compiled under the title of "Laws of the Canal Zone," in so far as they are inconsistent with this order, are modified and repealed.

Effective April 15, 1907.

THEODORE ROOSEVELT.

THE WHITE HOUSE, *March 13, 1907.*

EXECUTIVE ORDER.

Under authority vested in me by law, it is ordered:

That marriages in the Canal Zone may be celebrated by any Minister of the Gospel in regular standing in the Church or Society to which he belongs, by the Judge of any Court of Record, or by any Municipal or District Judge.

THEODORE ROOSEVELT.

THE WHITE HOUSE, *March 13, 1907.*

EXECUTIVE ORDER.

Under authority vested in me by law, it is ordered:

Section 179 of the Penal Code of the Canal Zone is amended so as to read as follows:

"SECTION 179. An assault is punishable by fine not exceeding twenty-five dollars, or by imprisonment in jail not exceeding thirty days."

Section 181 of the Penal Code of the Canal Zone is amended so as to read as follows:

"SECTION 181. A battery is punishable by fine not exceeding one hundred dollars or by imprisonment in jail not exceeding thirty days, or by both such fine and imprisonment."

Section 209 of the Penal Code of the Canal Zone is amended to read as follows:

"SECTION 209. Every parent of any child, or husband of any wife, lawfully chargeable with the support or maintenance of any child or wife, who abandons or wilfully omits, without lawful excuse, to furnish food, shelter, or medical attendance to such child or wife, is guilty of a misdemeanor."

Section 342 of the Penal Code of the Canal Zone is amended to read as follows:

"SECTION 342. Grand larceny is larceny committed in either of the cases:

"1. When the property taken is of the value of ten dollars and upwards.

"2. When the property is taken from the person of another.

"3. When the property taken is a horse, mare, gelding, cow, steer, bull, calf, mule, jack, or jenny.

"4. When the property taken is the property of the United States, Isthmian Canal Commission, or Government of the Canal Zone."

Section 368 of the Penal Code of the Canal Zone is amended so as to read as follows:

"SECTION 368. Every person guilty of embezzlement is punishable in the manner prescribed for feloniously stealing property of the value of that embezzled; and where the property embezzled is an evidence of debt, or right of action, the sum due upon it or evidenced to be paid by it shall be taken as its value: *Provided*, That if the embezzlement or defalcation be of the property or public funds of the United States, Isthmian Canal Commission, or of the Government of the Canal Zone, or of any municipality, city, or village of the Canal Zone, the offence is a felony and shall be punishable by imprisonment in the penitentiary for not more than ten years, and the person so convicted shall be ineligible thereafter to any office or employment of honor, trust, or profit with the United States, Isthmian Canal Commission, or Government of the Canal Zone."

Section 16 of the Code of Criminal Procedure is amended to read as follows:

"SECTION 16. District judges shall have original jurisdiction in all cases of misdemeanor, wherein the fine that may be imposed may not exceed one hundred dollars, or imprisonment in jail may not exceed thirty days, or both. They shall have jurisdiction of the circuit court in cases of violation of Zone or District ordinances."

THEODORE ROOSEVELT.

THE WHITE HOUSE, *March 13, 1907*.

10. The Chairman presented a statement showing the appointments, promotions, and other changes in the personnel of the Office of Administration of Isthmian Canal Affairs at Washington, covering the period from October 1, 1906, to December 31, 1906, inclusive, all of which changes were approved.

11. The Chairman laid before the Commission a memorandum from the Chief Engineer, under date of March 27, 1907, relative to the organization and establishment of the Isthmian Canal Commission Band.

Memorandum reads as follows:

Sometime ago a band, known as the Isthmian Canal Commission Band, was organized under the leadership of Dr. Sumner Coolidge. The members of this band have been practicing at Cristobal and playing at different points along the line, sometimes at great inconvenience to the members. It was readily seen that some inducement in the way of compensation would have to be offered if it was desired to keep this organization together. I believe that you will all agree with me that a good band is one of the necessities towards offering some amusement to our employees. The question of paying these band members out of the Commission funds was submitted to Washington for decision, and I would like to quote the following from a memorandum prepared in the Washington office.

(*a*) Congress appropriated $10,000,000 to be used for any lawful purpose connected with canal construction. This fund is available until expended, and of this amount we have an unexpended balance of approximately $1,500,000.

(*b*) The appropriation for the current year is made under certain digest headings, among them being an appropriation for the construction, engineering, and administration departments, of approximately $10,000,000, for skilled and unskilled labor; and another being the sum of approximately $10,000,000, to be used in the same department for material, supplies, and equipment.

The disbursement may therefore certainly be charged—

(*a*) To the unexpended balance of the $10,000,000 appropriated; or

(*b*) It may be divided between the two digest appropriations above referred to for the present fiscal year. The creation of the facilities may be charged to construction, and their running expenses to administration, and it will be noticed that these two appropriations for the current year are merged under one caption.

NOTE.—In so far as paying the members of the band for service rendered as such members, when they are already in the Canal Service, attention is called to a decision reading as follows:

"The provision of section 1764, Revised Statutes, that no compensation shall be made for any extra services whatever, which any officer or clerk may be required to perform, does not apply to employees whose compensation is not fixed by law. (6ms., 851.)"

On the strength of this memorandum, the Chief Engineer, and also acting as Chairman on the Isthmus, authorized Dr. Sumner Coolidge to take the following action in the matter of organization and establishment of the Isthmian Canal Commission Band on a permanent footing:

To have appointed a Board of Managers, to serve without a salary to act on matters of general direction of the band, and to whom the Director of the Band will report.

He suggested that the personnel of this Board of Managers should consist of Doctor Coolidge, Mr. Maltby, and Mr. Minear, the latter being General Secretary of the Young Men's Christian Association on the Isthmus.

To employ a musical director at a salary of not to exceed $2,000 per year; the entire time of said musical director to be devoted to musical work, not only to instrumental but to vocal also.

To appoint a librarian at a salary not to exceed $1,500 per year, said librarian to be an active member of the band, and his duties to cover

taking charge of all the business affairs, timekeeping, etc., and the arrangement and care of all property of the band, and to act as assistant to the Musical Director.

To designate members of the band as "Bandsmen" and to place them on the pay roll at not to exceed $25 per month and not to exceed in number 35, these 35 constituting the maximum number for whose services a salary is allowed. That this compensation shall cover the attendance of these musicians for at least eight band meetings per month. In case of absence from any of these meetings a deduction is to be made of $3.12½ on each occasion.

The Disbursing Officer advises that under the Comptroller's decision of October 27, 1906, relative to additional compensation for firemen for Isthmian Canal Commission employees, it was authorized that so much per run and per hour of service be paid, and that the action of the Chief Engineer in authorizing Doctor Coolidge to employ these men, when approved by the Commission, would thus appear to be authorized, the pay of these musicians to be handled on regular pay rolls.

In view of the above memorandum it was

Resolved, That the action of the Chief Engineer, in authorizing Dr. Sumner Coolidge, Acting Director of the Isthmian Canal Commission Band, to engage a director at $2,000 per annum, a librarian at $1,500 per annum, and the payment of $25 per month, or $3.12½ per meeting, for eight meetings, to members of said band up to 35 members, said members to be selected by the director of the band, is hereby approved.

12. The Chairman presented a communication from the Chief Sanitary Officer, dated February 9, recommending that Mr. George Hayworth, Chief Timekeeper for the Department of Government and Sanitation, be paid in the United States for forty-two days' leave of absence, effective December 17, 1906, without the necessity of returning to the Isthmus, and resignation take effect at the expiration of such leave.

Commissioners Goethals, Gorgas, Sibert, and Rousseau considered it advisable to pay Mr. Hayworth in the States, inasmuch as Mr. Hayworth, at the expiration of his leave, was to reenter the Government service in Habana, Cuba, and voted in the affirmative.

Chairman Stevens and Commissioners Gaillard and Smith voted in the negative. The vote being four to three in the affirmative, it was

Resolved, That in accordance with paragraph 11 of the minutes of the one hundred and thirteenth meeting of the Commission, payment for such leave is approved.

13. The Chairman presented a communication from the Executive Secretary, dated March 16, recommending that Mr. Hunter L. Johnson, a clerk in the Department of Law and Government, be paid in the United States for sixty days' leave of absence, effective April 6, 1907, without the necessity of returning to the Isthmus, his resignation taking effect at the expiration of such leave.

Upon motion, it was

Resolved, That if Mr. Hunter L. Johnson is granted this leave of absence, with pay, it will be necessary for him to return to the Isthmus and collect same.

14. The Chairman presented the following letter from the Chief Engineer, and after consideration the authorization recommended was granted.

CULEBRA, CANAL ZONE, *March 26, 1907.*

THE CHAIRMAN ISTHMIAN CANAL COMMISSION,
Culebra, Canal Zone.

SIR: I have authorized the following buildings since the one hundred and ninth meeting, held March 31, 1906, at which meeting a number of buildings were authorized by the Commission, but the Commission has not authorized the buildings shown below:

Paraiso:
Bar-iron rack.
Culebra:
Hospital addition.
Lirio:
Yardmaster's office:
Empire:
Ice platform.
Cunette:
1 range closet.
Bas Matachin:
Extension boiler shop.
Gatum:
Hotel-help quarters.
Taboga:
Sanitarium storeroom.
La Boca:
10 standard laborers' barracks, No. 2 (Sosa Hill).
1 standard laborers' kitchen, S. D. (Sosa Hill).
Gallego mess hall and kitchen (Sosa Hill).
Tool house.
3 range closets (Sosa Hill).
Laborers' bath house (Sosa Hill).
Ancon:
1 cook shed.
Chapel.
Gallego mess hall and kitchen.
3 standard laborers' barracks, No. 2.
1 standard laborers' kitchen, S. D.
Laborers' bath house.
1 range closet.
1 type 8 A house.
2 type 19 improved houses.
Hotel storeroom and cabinet shop.
Hotel waiters' and baggage room.
2 type 5 houses.
10 type 17 houses.
Hotel help quarters.
L. Q. S. and sanitary department office.

Ancon—Continued.
Insane asylum.
Attendants' quarters.
Cell building for men.
Cell building for women.
Women's ward.
Men's ward.
Administration building.
1 type 3 house.
Building department offices and storeroom.
1 type 15 house.
Corozal:
Gallego mess hall and kitchen.
1 standard laborers' kitchen, S. D.
1 range closet.
5 standard laborers' barracks, No. 2 (hill east of).
1 standard laborers' kitchen, S. D. (hill east of).
Gallego mess hall and kitchen (hill east of).
2 range closets (hill east of).
Laborers' bath house.
Pedro Miguel:
2 standard laborers' kitchens, S. D.
1 type 15 house.
Car repair shed.
5 type 14 houses.
1 type 15 house.
Paraiso:
Commissary.
2 type 5 houses.
1 standard laborers' kitchen, S. D.
1 range closet.
Erecting shed.
Boiler and blacksmith shop.
Carpenter shop.
Machine shop.
Storehouse.
Office building.
1 range closet.
Vault.
Fire department building.
Cartagencita:
1 standard laborers' kitchen, S. D.
Cucuracha:
Gallego mess hall and kitchen.
1 standard laborers' kitchen, S. D.
Rio Grande:
2 standard laborers' kitchens, S. D.
Commissary.
Schoolhouse.
Culebra:
Schoolhouse.
Engine house.
1 type 8 A house.

Culebra—Continued.
12 type 14 houses.
1 standard laborers' barrack.
Double dry closet.
Laundry.
Lodge hall.
Gallego mess hall and kitchen.
5 type 18 dormitories.
Lirio:
1 standard laborers' kitchen, S. D.
Cerro:
White police-officers' quarters.
Empire:
Band stand.
Hôtel laundry.
Office building (shops).
Machine shop.
Transfer table pit.
Boiler shop.
Blacksmith shop.
Erecting shop.
Car repair shop.
Planing mill.
2 range closets (new shops).
Schoolhouse.
Corral.
Silver mess kitchen.
5 type 18 dormitories.
Cunette:
Standard laborers' kitchen, S. D.
Casa Blanca:
1 standard laborers' kitchen, S. D.
Las Cascadas:
1 standard laborers' kitchen, S. D.
3 type 18 dormitories.
10 type 7 houses.
White laborers' bath house.
1 range closet.
Vault.
Pump shed.
Hotel laundry.
Hotel boiler shed.
Haut Obispo:
1 standard laborers' kitchen, S. D.
Laborers' bath house.
Bas Obispo:
1 type 18 dormitory.
Commissary.
Gamboa:
Gallego mess hall and kitchen.
1 standard laborers' kitchen, S. D.
Chagres:
1 standard laborers' kitchen, S. D.

Matachin:
1 standard laborers' kitchen, S. D.
Bas Matachin:
1 standard laborers' kitchen, S. D.
3 standard laborers' barracks No. 2.
Gorgona:
1 type 5 house.
1 standard laborers' barracks.
Lodge hall.
3 type 18 dormitories.
5 type 14 houses.
1 type 7 house.
Caballo Viejo:
1 standard laborers' kitchen, S. D.
Juan Grande:
Gallego mess hall and kitchen.
Laborers' bath house.
1 range closet.
Mamei:
Gallego mess hall and kitchen.
Laborers' bath house.
Tabernilla:
1 house type 5.
6 standard laborers' barracks No. 2.
2 laborers' bath houses.
Mess hall.
2 standard laborers' kitchens.
Tool house.
Hotel help quarters.
Commissary.
1 type 18 dormitory.
4 range closets.
Frijoles:
1 cook shed.
Gatun:
24-bed hospital.
1 type 8 house.
10 standard laborers' barracks, No 2.
2 standard laborers' kitchens, S. D.
Office building for division engineer
Gallego mess hall and kitchen.
Post-office.
Commissary.
White schoolhouse.
Colored schoolhouse.
5 colored married quarters.
6 range closets.
1 type 8 house.
2 type 18 dormitories.
Revised type A jail.
5 type 14 houses.
1 standard laborers' kitchen, S. D.
2 standard laborers' barracks.
Powder house.

Cristobal:

Deck houses on old barges.
Lodge hall.
Bakery storeroom.
Salvation Army barracks.
Timekeeping office.

Colon:

Washington Hotel storeroom.

Some of these buildings have been completed, while others are now under construction, and I recommend that formal authority be passed at the present meeting of the Commission covering the authorization of all of these buildings.

Truly, yours,

JOHN F. STEVENS,
Chief Engineer.

15. The Chairman laid before the Commission the following letter of resignation of the Chief Engineer, Mr. John F. Stevens:

CULEBRA, CANAL ZONE, *March 26, 1907.*

The CHAIRMAN, ISTHMIAN CANAL COMMISSION,
Culebra, Canal Zone.

SIR: I have the honor to present this, as my resignation from the office of the Chief Engineer of the Isthmian Canal Commission, to take effect April 1, 1907.

Truly, yours,

JNO. F. STEVENS, *Chief Engineer.*

In view of Mr. Stevens's resignation and the acceptance of same, it is hereby

Resolved, That, whereas Mr. Jno. F. Stevens, Chief Engineer of the Isthmian Canal Commission, has presented his resignation as Chief Engineer, which resignation has been accepted as of April 1, 1907, Col. George W. Goethals be appointed Chief Engineer of the Isthmian Canal Commission, taking effect April 1, 1907.

Resolved further, That Colonel Goethals shall receive no other salary as Chief Engineer than he receives as a member of the Isthmian Canal Commission.

There being no further business the meeting adjourned, subject to the call of the chairman.

MINUTES OF MEETINGS OF THE ENGINEERING COMMITTEE.

FORTY-SECOND MEETING.

WASHINGTON, D. C., *January 11, 1907.*

The meeting was called to order at 11 a. m. by the Chairman, Commissioner Endicott.

Present: Commissioners Endicott, Hains, and Harrod.

The minutes of the forty-first meeting were read and approved.

1. The Chairman laid before the meeting copy of a letter from Senator J. H. Millard to the Chairman of the Commission, under date of January 8, stating that it had been referred to the Engineering Committee for report. The letter follows:

WASHINGTON, D. C., *January 8, 1907.*

HON. THEODORE P. SHONTS,

Chairman Isthmian Canal Commission, Washington, D. C.

DEAR SIR: At a meeting of the committee held this morning it was reported by one of the members that the borings for the locks at Gatun and on the Pacific side of the Culebra Cut had been found unsatisfactory, and that the proposed lock on the Pacific side had been changed some 2 or 3 miles from the original point designated. It has also been reported that the borings at Gatun were found to be very unsatisfactory, and it is the desire of the committee that before Tuesday morning next (when our regular meeting will be held) you give us full information in regard to the borings at this point, and also any other borings that may have been had during the past year. It is the wish of the committee that this be as full and complete as possible, as the rumor seems to indicate that at Gatun especially the conditions have been found very unfavorable.

Respectfully, yours, J. H. MILLARD, *Chairman.*

On motion, Commissioner Harrod was requested to draft a report to the Chairman of the Commission, which, with amendments, was adopted. (The report follows.)

WASHINGTON, D. C., *January 12, 1907.*

MR. T. P. SHONTS,

Chairman Isthmian Canal Commission.

DEAR SIR: In compliance with the request of Senator J. H. Millard, Chairman Senate Committee on Interoceanic Canals, of date January 8, 1907, referred to the Engineering Committee, it has the honor to transmit the following information concerning the borings at Gatun, accompanied by plans of all borings that have been

made heretofore. This information is as full and complete as possible, including everything bearing on the subject of the Senator's letter, which is on file in this office.

No. 1. Blueprint showing locations of borings on lock site and dam site at Gatun.

No. 2. Blueprint showing borings additional to those on sheet No. 1.

No. 3. Blueprint showing profiles of borings on or near the axis of the Gatun dam.

No. 4. Blueprint showing location of borings for the Gatun lock site, and the axis of the location adopted for the lock.

No. 5. Series of six blueprints showing profiles on boring lines to develop the lock site at Gatun.

Nos. 6 and 7. Blueprints showing borings on cross-sectional lines through the lock site and the relative position of the lock walls.

No. 8. Blueprint showing the stratification of material and the top of lock wall and level of lock floor on a profile along the axis of the locks, and also profiles on parallel lines 170 feet east and west of the axis of the locks.

The Commission at its meeting on November 20, 1906, directed the continuance of examinations to furnish information for the designing of locks, by sinking test pits under the lock walls, and the testing of block samples from these pits to determine the bearing power of the material and other physical characteristics.

The materials disclosed by the observations of the strata underlying the lock site show, below the surface soil, either what is denominated by the engineers in the field as "indurated clay," or "chopped sand and clay." These terms may be misleading. The chopped material is different from the "indurated clay" and seems to be a sort of hardpan or conglomerate, either of which will make a good foundation. Referring to the physical, and not to the geological, character of these formations, the "indurated clay" has a rock-like consistency which resists compression and erosion and makes an entirely satisfactory foundation for the proposed lock structures. This is established by the borings and by the exposures of the material in the French work at the dry dock at Cristobal.

By the term "chopped," in connection with the other material, is designated the method found most rapid and economical in penetrating it with boring tools. While a diamond drill was used in the so-called "indurated clay," a chopping bit was found most useful in the other material. It could have been taken out in cores by a diamond drill, and, in fact, this process was used at times. The terms are not intended to convey an impression of the value of their physical properties for a lock foundation. An opinion of the relative values of the two materials for foundation purposes is expressed in correspondence by Mr. Stevens, Chief Engineer, as follows:

"It will be noted that under the so-called indurated clay in cross sections 1, 2, and 3 exists what is called blue clay and sand—clay, gravel, and fine sand, etc.

"This material, while not so hard as the so-called indurated clay, is in every respect an equally good and sufficient foundation, in my opinion, for the locks, or a structure of any weight or importance. In fact if there were not a particle of indurated clay in Gatun Hill I would not have the slightest hesitancy in founding the whole structure on this material.

"I beg, in this connection, to inclose, under separate cover, a sample of this material, which was taken as a core from the borings, as it is found in cross section 1, as the material underlying the indurated clay, and I think you will agree with me that there is no doubt whatever as to its character for foundation purposes. I believe it is as good as indurated clay, and good enough in any case."

We know of no foundation for the report "that the proposed lock on the Pacific side has been changed some 2 or 3 miles from the original point designated." The locks, both at Pedro Miguel and Sosa, occupy substantially the sites chosen by the Minority of the Advisory Board. These locations were necessarily general. When

special examinations were made, it was found that the rock foundation for the locks at Pedro Miguel did not extend over the entire area covered by the structures, and a slight shifting of their position may be advisable, but there have been no other changes contemplated.

In conclusion, we state that the investigations which the Commission has continued have thus far led to no disclosure of extraordinary difficulties requiring changes of previous plans. The continuation of surveys has for its object the complete adaptation of the design of locks and other features of the plan to the existing surface and subsurface conditions.

There is nothing in the later examinations made affecting the practicability or permanence of the Gatun dam.

Very respectfully,

MORDECAI T. ENDICOTT,
Chairman Engineering Committee.

2. Consideration was given the miscellaneous communications which had been received since the preceding meeting, and they were disposed of seriatim.

At 12.30 o'clock the Committee adjourned, subject to the call of the Chairman.

FORTY-THIRD MEETING.

WASHINGTON, D. C., *January 22, 1907.*

The meeting was called to order at 11.15 a. m. by the Chairman, Commissioner Endicott.

Present: Commissioners Endicott, Hains, and Harrod.

The minutes of the forty-second meeting were read and approved.

1. There was laid before the Committee the report of the General Counsel of the Commission as to the title and cost of the proposed site for defensive works on Coco Solo Point, stating that the Fortifications Committee of the War Department may proceed upon the assumption that the Government will experience no difficulty with respect to the title to the lands in question.

On motion, it was directed that the General Counsel's report and the accompanying papers be returned to the Office of Administration with recommendation that they be forwarded to the Chief of Engineers, U. S. Army.

2. Consideration was given the miscellaneous communications which had been received since the preceding meeting and they were disposed of seriatim.

At 11.45 a. m. the Committee adjourned, subject to the call of the Chairman.

FORTY-FOURTH MEETING.

WASHINGTON, D. C., *March 8, 1907.*

The meeting was called to order at 3.30 p. m. by the Chairman, Commissioner Endicott.

Present: Commissioners Endicott and Hains.

The minutes of the forty-third meeting were read and approved.

1. The Chairman laid before the meeting correspondence from George Upington, of New York, regarding a new type of dredge which he proposes to construct, and also plans and specifications of the same.

On motion, all data respecting this dredge was referred to the Office of Administration for transmission to the Chief Engineer.

2. The Committee considered the communications which had been received since the preceding meeting, and they were disposed of in regular order.

At 4.45 p. m. the Committee adjourned.

FORTY-FIFTH MEETING.

WASHINGTON, D. C., *March 15, 1907.*

The meeting was called to order at 10.45 a. m. by the Chairman, Commissioner Endicott.

Present: Commissioners Endicott and Hains.

The reading of the minutes of the preceding meeting was dispensed with.

The Committee acted upon the miscellaneous communications which had been received since the preceding meeting, and thereupon adjourned.

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